UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

SPS Compliance and Costs of

# AGRIFOOD SAFETY AND QUALITY STANDARDS

in Selected Least Developed Countries in the Pacific Region

Samoa, Solomon Islands and Vanuatu

UNITED NATIONS

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# SPS Compliance and Costs of Agrifood Safety and Quality Standards in Selected Least Developed Countries in the Pacific Region

SAMOA

SOLOMON ISLANDS

VANUATU

UNITED NATIONS

New York and Geneva, 2008

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# PREFACE

Agricultural and food crops (agrifoods) trade is of vital importance to low-income developing countries dependent on one or two commodities for their people's livelihoods and their export earnings. Despite the progressive liberalization of international trade through tariff reductions over the past 40 years, many developing countries continue to encounter problems in accessing export markets. This is largely due to the panoply of non-tariff measures that are increasingly applied along commodity value chains "from farm to fork". These include complex conformity procedures, food laws and technical regulations, and multiple food safety standards – both public (mandatory) and private (voluntary) – imposed at or behind borders in importing markets. The proliferation of non-tariff measures not only circumvents the beneficial aspects of GATT, but also increases the compliance costs of effective access to markets, amplifying the cost-price squeeze on the most vulnerable link in the chains: small-scale producers.

Since 2000, UNCTAD has strengthened its work on the market-access problems facing developing countries, with a particular focus on sanitary and phytosanitary measures and on compliance with food safety standards and quality requirements. UNCTAD is currently implementing projects in the areas of sanitary and phytosanitary measures and compliance costs in a number of developing countries, namely Guinea, Mozambique and the United Republic of Tanzania. These projects build the capacity of small- and medium-scale agrifood producers and exporters in addressing sanitary and phytosanitary requirements and meeting food quality standards.

This study examines the problems faced by agrifood producers and exporters in three least developed countries in the Pacific islands, namely, Samoa, the Solomon Islands and Vanuatu. The problems identified reflect these countries' wider resource constraints and supply-side difficulties. The study recommends that the international development community do its utmost to support these island economies in their efforts to overcome complex and dynamic non-tariff barriers to trade. A comprehensive development programme, including an appropriate aid-for-trade strategy tailored to their specific needs, is critical. Aid-for-trade could help strengthen their trade-related capacities and improve their supply-side infrastructure and services such as quarantine facilities and laboratories, which would in turn enhance their export competitiveness, raise per capita income and reduce poverty.

The study benefited from the cooperation and input of key persons from government agencies and the private sector in the three island economies, as well as from regional organizations. It is hoped that this research will contribute to the development of sustainable follow-up programmes not only in the Pacific region but also in other developing countries.

The study was prepared by Dermot Cassidy (Agricultural and Export Marketing Consultant, Silver Lakes, Pretoria, South Africa), with advice and support from Amos Taporaie and Djidiack Faye (UNCTAD, Geneva); Amos Taporaie also edited the report and contributed three sections to it.

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**Harmon C. Thomas**

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## COUNTRY STUDIES

# ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| AAS | atomic absorption spectroscope |
| ACAIR | Australian Center for International Agricultural Research |
| ACEO | assistant chief executive officer |
| ACP | Asia, Caribbean and Pacific |
| ADB | Asian Development Bank |
| APFED | Asia-Pacific Forum for Environment and Development |
| AQUIS | Australian Quarantine and Inspection Service |
| AusAID | Australian Agency for International Development |
| B2B | business-to-business |
| BRC | British Retail Consortium |
| CAC | Codex Alimentarius Commission |
| CAC/GL 21-1997 | commonly quoted abbreviation for “Principles for the Establishment and Application of Microbiological Criteria for Foods” adopted by Codex Committee on Food Hygiene in 1997 |
| CDC | Commonwealth Development Corporation |
| CDDCs | commodity-dependent developing countries |
| CDE | Center for the Development of Enterprises |
| CEMA | Commodity Export and Marketing Authority |
| CEO | chief executive officer |
| CGFV | clean and green fruits and vegetables |
| CIRAD | French Agricultural Research Centre for International Development |
| CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora |
| CODEX | Codex Alimentarius Commission (CAC) |
| COOL | country of origin labelling |
| COPV | Coconut Oil Products Vanuatu |
| CRP | Comprehensive Reform Programme |
| DAL | Department of Agriculture and Livestock |
| DARD | Department of Agriculture and Rural Development |
| DEFRA | Department of Environment, Food and Rural Affairs. |
| DEH | Department of Environmental Health |
| DevFish | Development of Tuna Fisheries in ACP-Pacific Countries |
| DFAT | Department of Foreign Affairs and Trade |
| DFMR | Department of Fisheries and Marine Resources |
| DITC | Division on International Trade in Goods and Services, and Commodities (UNCTAD) |
| DME | Direct Micro Expelling |
| DNPAC | Department of National Planning and Aid Coordination |
| DWFN | distant water fishing nations |
| EEC | European Economic Community |
| EEZ | exclusive economic zone |
| EHD | Environmental Health Division |
| EU | European Union |
| EUREPGAP | European Retailers Protocol for Good Agricultural Practice |
| FAD | Fish Aggregating Device |
| FAO | Food and Agriculture Organization of the United Nations |
| FDA | Food and Drug Administration |
| FES | field experimental stations |
| ffa | free fatty acid |
| f.o.b. | free-on-board |
| FOC | flag of convenience |
| FT | fair trade |
| FTA | free trade agreement |
| FTAANZ | Fair Trade Association of Australia and New Zealand |
| FTDC | Food Technology Development Center |

| | |
|---|---|
| GAP | good agricultural practice |
| GDP | gross domestic product |
| GLP | good laboratory practice |
| GMO | genetically modified organism |
| GMRWR | Department of Geology, Mines and Rural Water Resources |
| GPPOL | Guadalcanal Palm Plantation Oil Limited |
| GRAS | generally regarded as safe |
| HACCP | hazard analysis and critical control points |
| HTFA | high-temperature forced air |
| IANZ | International Accreditation New Zealand |
| ICCAT | International Commission for the Conservation of Atlantic Tuna |
| ICT | information, communication and technology |
| IMF | International Monetary Fund |
| IPPC | International Plant Protection Convention |
| IRA | import risk assessment |
| ISO | International Standards Organization |
| IUU | illegal, unregulated and unreported |
| JCSA | Japan Chain Stores Association |
| JICA | Japan International Cooperation Agency |
| JITAP | Joint Integrated Technical Assistance Programme |
| JLAV | John Lum and Associates (Vanuatu) |
| kg | kilogram(s) |
| KPA | Kokonut Pacific (Australia) Pty Limited |
| KPSI | Kokonut Pacific Solomon Islands |
| LCM | Lo Chan Moon |
| LDCs | least developed countries |
| LRD | Land Resources Division |
| MAQFF | Ministry of Agriculture, Quarantine, Forestry, and Fisheries |
| MCA | Millennium Challenge Account |
| MCIL | Ministry of Commerce, Industry and Labour |
| MCS | Monitoring Control and Surveillance |
| MDCK | Malekula Distribution Center Kaoka |
| MEAs | multilateral environmental agreements |
| MFAT | Ministry of Foreign Affairs and Trade |
| MFEAT | Ministry of Foreign Affairs and External Trade |
| MHMS | Ministry Health and Medical Services |
| MOAF | Ministry of Agriculture and Fisheries |
| MOH | Ministry of Health |
| MOR | Ministry of Revenue (Border Control) |
| MRL | Maximum Residue Limit |
| MSG | Melanesian Spearhead Group |
| MSY | mean sustainable yield |
| MT | metric tons |
| MTCI | Ministry of Trade Commerce and Industry |
| MTF | Multilateral Treaty on Fisheries |
| NASSA | National Association of Sustainable Agriculture in Australia |
| NBFM | National Business Forum Matrix |
| NFDL | National Fisheries Development Limited |
| NFR | Novel Food Regulation |
| NGO | non-governmental organization |
| NISCOL | Northern Islands Stevedoring Company Limited |
| NUS | National University of Samoa |
| NZMAF | New Zealand Ministry of Agriculture and Food |
| NZODA | New Zealand Overseas Development Assistance |
| OIE | International Office of Epizootics |

| | |
|---|---|
| ORPT | Organization for Promotion of Responsible Tuna Fisheries |
| PACER | Pacific Agreement on Closer Economic Relations |
| PNG | Papua New Guinea |
| PICs | Pacific Island Countries |
| PICT | Pacific Island Country and Territory |
| PICTA | Pacific Island Countries Trade Agreement |
| PINA | Pacific Islands Noni Association |
| PIPLD | Pacific Islands Pest List Database |
| POPACA | Projet d'Organisation des Producteurs Agricoles pour la Commercialisation Associative |
| PRA | pest risk analysis |
| PSNDP | Private Sector National Development Programme |
| QMS | quality management system |
| RAMSI | Regional Assistance Mission for Solomon Islands |
| SCVPH | Scientific Committee on Veterinary Measures relating to Public Health (EU) |
| SI$ | Solomon Islands dollar |
| SIPL | Solomon Islands Plantation Limited |
| SMP | Santo Meat Packers |
| SPAGC | South Pacific Applied Geosciences Commission |
| SPC | South Pacific Commission |
| SPC | Secretariat of the Pacific Community |
| SPFFA | South Pacific Forum Fisheries Agency |
| SPREP | South Pacific Regional Environmental Programme |
| SPS | sanitary and phytosanitary measures |
| STDF | Standards and Development Trade Facility |
| STMDP | Samoa Tuna Management and Development Plan |
| TA | Technical Assistance |
| TBT | Technical Barriers to Trade |
| TCDC | Tanna Coffee Development Company |
| TOR | Terms of reference |
| TRTA | Trade-related Technical Assistance |
| UK | United Kingdom |
| UKROFS | United Kingdom Register of Organic Food Standards |
| UNCLOS | United Nations Convention on the Law of the Sea |
| UNCTAD | United Nations Conference on Trade and Development |
| USA | United States of America |
| USDA | The United States Department of Agriculture |
| USP | University of the South Pacific |
| VAL | Vanuatu Abattoirs Limited |
| VARTS | Vanuatu Agricultural Research and Technology Center |
| VCCE | Vanuatu Coconut and Cocoa Export |
| VCCI | Vanuatu Chamber of Commerce and Industry |
| VCMB | Vanuatu Commodity Marketing Board |
| VCO | virgin coconut oil |
| VCPL | Vanuatu Coconut Products Limited |
| VFDP | Village Fisheries Development Project |
| VIPA | Vanuatu Investment Promotion Authority |
| VQIS | Vanuatu Quarantine and Inspection Services |
| VVCO | Vanuatu Virgin Coconut Oil |
| WCPO | Western Central Pacific Ocean |
| WHO | World Health Organization |
| WTO | World Trade Organization |

# EXECUTIVE SUMMARY

## Overview and research methods

### Rationale

The main drivers underpinning broad-based economic growth and development among 14 of the 16-member regional grouping: Pacific Forum Countries, are the production and exports of agricultural commodities and natural resources. Dependence on commodities is high among most Pacific island countries (PICs). With over 75 per cent of their populations dependent on the agricultural and fisheries sectors, producers and exporters encounter myriad problems in international trade. To be competitive in international trade, these actors in global commodity chains have to incur additional resource costs to implement costly quality management and assurance schemes, conformity assessment procedures, and supply enhancing infrastructure to demonstrate compliance with both public (mandatory) and private (commercial voluntary) standards. The latter standards are higher than national and internationally accepted standards.

The panoply of technical regulations and laws pertinent to agrifood quality and safety standards has had a systemic effect on agrifood production and trade in all PICs. Cumbersome administrative obstacles at and behind borders, lack of technical and financial resources, and falling infrastructure and supply-side inadequacies impose costs on local entrepreneurs which not only distort the relative cost structures of domestic suppliers, but also impede export trade growth. This has also raised the 'cost of doing business' in the PICs relative to other countries in Africa, Asia and the Caribbean who have similar resource endowments and levels of economic development. As a result, investment and trade expansion withers, while profitability suffers as agrifood producers and exporters divert resources in capacity-building and facilities to demonstrate compliance. This has meant that not all PICs are able to benefit fully from trade liberalization despite lowering of tariff rates and quantitative restrictions over the past 40 or so years.

This sobering background provided the impetus to launch the project in agrifood safety and quality standards. Generous grant assistance of US$71,000 from the Government of Finland enabled UNCTAD to implement this project, focusing on three of the five least developed countries (LDCs) in the Pacific LDCs: Samoa, Solomon Islands, and Vanuatu.

### Objectives and methodology

The objectives of the research were four-fold. First, to identify and quantify the compliance costs of agrifood safety and quality requirements imposed on major agricultural commodities and food products (agrifoods) of export interest to the three focus countries. Second, to develop a framework that will assist stakeholders estimate the costs of compliance of their operations. Third, strengthen institutional capacity – both public and private - so that these countries are able to address food safety and quality standards, certification protocols and technical regulations. Fourth, improve domestic capacity in trade policy analyses.

Research methodology involved the consultant having to undertake fieldwork in Samoa, Solomon Islands and Vanuatu undertaken between mid-June and August 2006. During this period, baseline data was collected primarily through interviews with key stakeholders engaged in the application and monitoring of sanitary and phytosanitary measures - stipulated in the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) - and agrifood safety standards, regulation and certification protocols. Secondary and tertiary data were collated and analysed from national and regional institutions, and global sources. The 'draft study' and the STDF grant application: project proposal on *kava* trade for Vanuatu, were completed in August 2006. Both were presented at the sub-regional training workshop convened in Port Vila, Vanuatu from 21-22 August 2006.

The study benefited from the support, cooperation, and input of key stakeholders engaged in the agrifood chains of the three focus countries as well as the regional organizations, in particular, Pacific Forum Secretariat and South Pacific Commission, both located in Suva, Fiji, and the Food and Agriculture Organization of the United Nations (FAO) sub-regional office, Apia, Samoa.

### Analytical framework

The analytical framework of the study was anchored on four pillars; inventory, impact assessment, policy analysis, and strategies of technical assistance. Under the first pillar (inventory), existing SPS compliance and agrifood safety standards were created and compared with standards in major export destinations of the three Pacific LDCs. It also recommended ways and means to harmonize and simplify these food safety standards. The second pillar (Impact Assessment) assessed the impact of these SPS standards on agrifood trade, and evaluated the institutional capacity and current national legislations that address SPS compliance and agrifood safety standards. Under policy analysis, the technical, institutional and policy constraints in meeting food safety and quality standards were identified and quantified. The strategies of technical assistance pillar developed country-specific strategies developed and conducted in-depth of the technical constraints. An STDF grant application for kava export trade and development in Vanuatu was also prepared and delivered at the SPS compliance training workshop.

## Major findings

### State of agrifood trade

Samoa, Solomon Island and Vanuatu are essentially agriculture-based economies, with 23 - 72 per cent of their populations actively engaged in the sector for income and livelihoods (see data table below). Traditional, archaic methods of farming are used with little to no external inputs (fertilizer and agrochemicals). Fisheries is ubiquitous to all PICs. Collectively, PICs' fisheries account for over half of the world's tuna supplies, which generate significant revenues (rents) for the national governments, primarily through license fees collected from foreign fishing vessels. Downstream processing of fish and fish products is limited and remains untapped. The coastal fisheries sector continues to be an important source of employment, cash economy, and livelihoods for coastal populations.

**Key Economic Indicators** [1]

| Country | Land Area (Sq. Km) | Population ('000) | % Pop. in Agriculture | % Export Concentration - Top 3 commodities | Value of Merchandise Exports (US$ million) | | Average Annual Growth Rate (%) |
|---|---|---|---|---|---|---|---|
| | | 2005 | 2005 | 2000-2004 | 1980 | 2004 | 1980-2004 |
| **Samoa** | 2,944 | 179 | 32% | 81.3% (fresh fish 53.9; garments 18.5; coconut products 8.9) | 17 | 11 | -0.40 |
| **Solomon Islands** | 28,450 | 477 | 72% | 89.5% (Fish products 40.8; timber 26.3; copra 8.4) | 74 | 100 | 1.48 |
| **Vanuatu** | 12,200 | 212 | 35% | 31.1% (Copra 14; timber 8.7; beef 8.4) | 36 | 37 | -0.54 |
| **Total - PICs** | **528,141** | **7,836** | | | **2,290** | **4,951** | **3.85** |

The three Pacific LDCs produce a large variety and quantity of agricultural commodities and food crops. Coconut and coconut by-products, fresh fish, and taro are important export product of Samoa. For Solomon Islands, cocoa, copra, fish (fresh, frozen, smoked and canned), palm oil and kernel, and timber are significant foreign exchange earners. Vanuatu's principal export is beef (to the lucrative Japanese market), followed by copra, cocoa, and timber. Kava used to be Vanuatu's single most important export commodity before the European Union (EU) led ban (in 2002) had almost alienated the kava industry had it not been for strong local and intra-regional demand among kava-producing and consuming PICs.

Except for Vanuatu, export concentration had increased from 47.5 per cent to 81.3 per cent and 75.5 per cent to 89.5 per cent in Samoa and Solomon Islands, respectively, during the periods 1986-1990 and 2000-2004. This is

[1] UNCTAD, 2008. *Commodities trade and development in Pacific Forum Countries: a perspective on potential dynamic products*, DITC, UNCTAD, Geneva. (*Forthcoming*)

indicative of the general increase in dependency on agricultural commodities and exports in the two island economies. Vanuatu's export concentration dropped from 53.1 per cent to 31.1 per cent for the same periods.[2]

Not only are exports concentrated in one or two tradeable primary products, but export and import markets are also concentrated. The EU, Australia, New Zealand, Japan, and the US have traditionally being the major export destinations for PICs, including the focus-countries. However, in recent times, the emerging and 'Asian tiger' economies have become increasingly important trading partners. Exports to China, Japan, and Thailand have grown significantly for Solomon Islands and Vanuatu, displacing Australia and New Zealand as the top export destinations. For Samoa, Australia remains its single most important export market (63 per cent), while New Zealand supplies much of its imports (20 per cent).[3]

Part of the reason for negative trade expansion (or growth) recorded by Samoa (-0.40 per cent) and Vanuatu (-0.54 per cent) between the period 1980-2004 is largely explained by the persistent supply-side bottlenecks such as insufficient credit and financial resources, storage facilities, and poor distribution networks (roads and telecommunications). A feature peculiar to these island economies is that they are physical located at the 'end of the fuel chain' which raises freight and transhipment costs. The resulting secular increase in prices lend to the 'high cost of doing business' in most island countries. Cumbersome bureaucratic inspection and customs procedures, weak linkages with international buyers, insufficient cooling and testing facilities, and the absence of accredited laboratories and certification bodies only adds to their agrifood export trade woes. Lack of capacity and the inability to meet international market requirements, however, remain the most ominous impediments to market access and trade expansion.

## State of SPS compliance, agrifood safety and quality standards

In terms of addressing SPS compliance and agrifood safety and standards, not to mention technical and corporate regulations, there are no regional standards-setting and certification bodies in the South Pacific. There is, however, scope for improvement - through concerted investment and capital development - of existing agencies, particularly, the Institute of Applied Sciences (IAS), Suva, Fiji Islands[4], and the FAO sub-regional office, Apia, Samoa.[5]

The situation at the national level is similar.

In **Samoa**'s case, it has two food safety and quality standards legislations: Food and Drug Act (1967) and Quarantine Act (2005). Its huge problem is in its implementation of the protocols and, the monitoring and evaluating of its impact, chiefly due to resource constraints. And a major looming challenge for the Samoan authorities it the integration of the EU's 'farm to fork' requirements in its existing national legislations. Samoa's National Codex Committee is similarly incapacitated by resource deficiencies. The Committee is unable to provide the necessary capacity-building training in SPS and standards for its customs and quarantine inspectors, let alone attend and participate in standards-setting meetings and conferences organized Codex Alimentarius Commission which implements the Joint FAO and World Health Organization (WHO) Food Standards Programme.[6]

Fortunately for Samoa, the Government of New Zealand (GoNZ) shares some of this burden. The GoNZ supports, bearing most of the costs, individual certification of organics, HACCP and Fair Trade through NZ-based certification bodies. Much of Samoa's deep-sea fisheries products, especially tuna, is sold to and processed in neighboring American Samoa, which has facilities and conformity assessment processes that are USDFA and HACCP certified.[7] Japan, another major tuna importer, has made significant capital investments in upgrading Samoa's fishing industry facilities (wharves, jetties, docks, fish packing factory, fish market, office). Its prime objective is to improve the capacities of fishing companies and Samoa's competent authority to meet Japan's stringent market entry requirements of its lucrative sushi and sashimi markets and demonstrate compliance.[8]

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[2] Ibid.
[3] Ibid.
[4] The Institute of Applied Sciences, University of South Pacific, Suva Campus, Fiji Islands, conducts 150 types of tests for water, food, food microbiology and soils.
[5] The FAO sub-regional office supports regional-capacity building in food safety issues including food security. It also lends support to the IAS, USP, Fiji Islands.
[6] Samoa, Solomon Island, and Vanuatu are members of the Codex Alimentarius Commission.
[7] HACCP certification is provided by the Government of New Zealand.
[8] In 1997 Japan banned imports of fresh, chilled and processed tuna from Samoa due to lack of compliance with its stringent products quality, hygiene and packaging requirements.

Solomon Island does have national regulations and legislation pertaining to SPS and food safety and quality standards which are being reviewed thoroughly by donor agencies. Plans are in advanced stages to increase the technical know-how and competence of quarantine services and inspectors, with donor funding.

In the private sector, there are clear market needs to expedite resources on compliance (upgrading plant, machinery, certification, product testing equipment, training, etc.) locally. Because lack of national standard-setting and/or certification bodies, local enterprises are forced to seek assistance - commercial inputs - from abroad, which adds to compliance costs.

It is therefore necessary to reinforce the capacity of Solomon Island's private sector to implement food safety and quality standards. A favorable development, in recent years, has been the investment of significant resources into the fishing industry, again by the donor community, to advance Solomon Islands into 'List 1'.[9] This is a welcome sign as the Solomon Island's public sector and tuna fishing and canning industry were set to incur substantial costs in order to meet EU's exacting standards. These include costs of; HACCP certification, installation of temperature recorders, improvement in toilet facilities, refitting of wooden lockers, and replacement of wooden decking on fishing vessels. Upgrading of refrigeration plants on vessels alone, for example, require a capital outlay of US$4.5 million. They all amount to high costs which neither the Government of Solomon Island nor the tuna fishing and canning industry cannot finance or sustain over time.

Meanwhile, the emerging and growth industry, palm oil, requires little SPS input as its parent company, PNG-based New Britain Palm Oil Limited (NBOPL), already enjoys global acceptance given its ISO 14001 certification for its Environmental Management System (EMS).[10]

As for **Vanuatu**; the largest of the three focus countries, the situation is mixed.

Vanuatu has three national legislations related to food safety; Food (Control) Act No. 21 (1993), [proposed] Food (Control) Regulations (2006), and the Phytosanitary Act (1977). The Food Control Acts are administered by the Ministry of Health. The Food Control Act (2006) and Phytosanitary Act (1977) are being reviewed and, when completed and implemented, they are expected to contribute significantly towards improving the food safety standards and procedures in Vanuatu. Vanuatu also benefits from the Pacific Islands Pest List Database (PIPLD) which provides up-to-date phytosanitary information, particularly on status of pests in various countries.

In general, SPS requirements and environmental standards have little effect on Vanuatu's agricultural and food trade, especially, intra-island trade. The reasons being (i) the prevailing agrifood safety standards (official and private/voluntary) are similar to those in Vanuatu, and (ii) the phytosanitary issues are largely being addressed. Additionally, the Vanuatu's private sector has better capacity and facilities to deal with SPS-related issues than the public sector.

For a small island country, Vanuatu has performed extremely well in the beef (veal) sector, particularly through its two companies; Santos Meat Packers Limited (SMPL) and Vanuatu Abattoir Limited VAL). SMPL (located on Santos Islands) has successfully penetrated and supplied the lucrative and highly SPS sensitive Japanese beef market with prime veal cuts for the past 20 years. It also supplies prime veal cuts to Solomon Islands and Papua New Guinea (PNG). Meanwhile, VAL has secured market in Norway to supply prime cut beef from its facilities. Despite Vanuatu's export success in some beef markets, its beef and veal exports continue to encounter market entry problems in some intra-island markets, for example, New Caledonia. Similarly its beef processing facilities have had difficulties attaining EU compliance. It is hoped that the present EU-funded programme, jointly implemented by Vanuatu Quarantine and Inspection Services (VQIS) and VAL, would improve Vanuatu's inspection and certification systems to comply with EU standards. Already the programme has successfully introduced a national residue monitoring system for the beef industry.

Kava: Vanuatu's chief commodity export before the EU-led ban on kava import, still encounters export restrictions in key markets, particularly Australia, the EU, New Zealand and the US. The EU-led global ban on kava imports, beginning 2002, has had a devastating and measurable impact on Vanuatu's economy (see Fig 4). Further growth and expansion of kava trade is curtailed by supply chain inefficiencies as well as SPS-related compliance issues.

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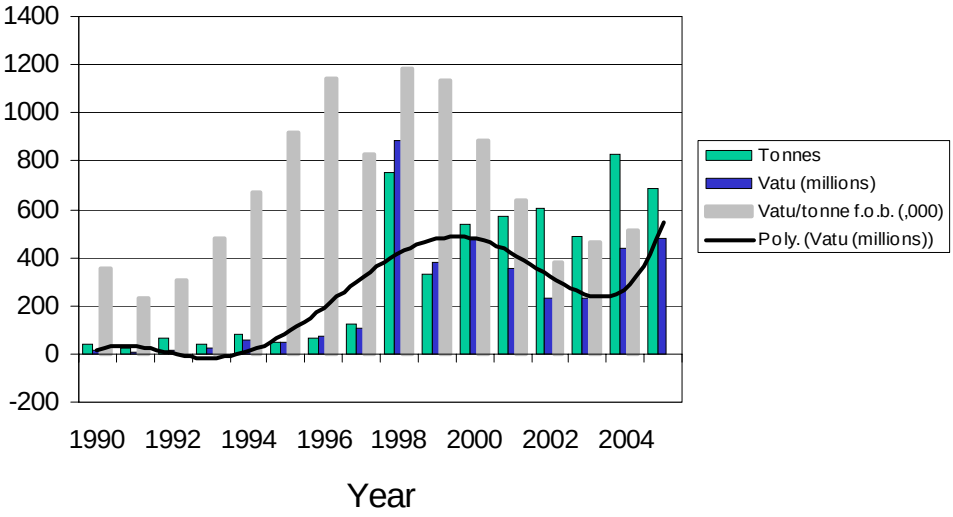
[9] Fishery products from PICs are subject to certification by an official competent authority; a pre-requisite to enter the EU market. The local competent authority is required to verify and certify compliance of PICs' fisheries products into the EU market only after it meets the EU directive(s). Solomon Islands' push is to be placed on List 1, which would enable it to export fish and fishery products to the EU market.

[10] NBPOL attained ISO 14001 (1996) accreditation in April 2004. With ISO 14001 certification, the company has in place an EMS to monitor and manage environmental performance that permits objective auditing and provides a framework to implement environmentally sustainable practices in five of its palm oil processing plants.

Fig 4. Kava exports from Vanuatu (1990-2005)




## Macro and micro compliance costs

In order to fully capture the costs of SPS measures, and safety and quality standards of agrifood exports and fisheries products from the three Pacific LDCs, it was necessary to gather data on both 'macro' and 'micro' (firm-level) costs. Macro costs are those incurred by the public institutions to conform to the demands of importing countries, while micro costs are those incurred by producers and traders for the same purpose at the enterprise level.

The cost estimates presented here are only valid under the particular set of assumptions in each country. Fundamentally, it is contingent on the wide differences in terms of resource endowments and capacity to access resources (e.g. productive inputs, financial services), and the level of economic development in each country.

The cost enquiry grids - developed by the study - are useful tools for (i) analysing in detail individual firm-level costs for own requirements and compliance; and (ii) producers to identify the HACCP requirements and other relevant standards (e.g. EurepGap, BRC) and estimate the costs of meeting these requirements.

### *Macro costs*

Macro costs represent those costs that are incurred by public sector. They may include costs of legislation development, training, infrastructure and equipment upgrading, inspection and testing, and other monitoring and control mechanisms. The cost enquiry grids - developed by the study - for public institutions define (i) the key components that should be present in food control system(s); (ii) the activities to implement these components; and (iii) the inputs needed to carry out by these activities.

A summary of the macro costs of is presented below. The aggregate macro cost of compliance for the three Pacific LDCs is estimated to cots about US$5.4 million. The magnitude or level of the macro costs implicates the level and status of the public sector in addressing SPS compliance and agrifood safety and quality standards in each country. The higher the macro costs, the lower the preparedness of the country to address SPS and food safety standards. Using this analogy, of the total $5.4 million, Solomon Islands needs about $3.6 million (or 67 per cent) to revamp its internal controls over procurement and product safety employed in the public sector. This is followed by Samoa needing $927,000 (or 17 per cent) and Vanuatu $860,000 (16 per cent).

## Summary - Macro Costs of Compliance (US$)

| Country | Organization | Cost (US$) |
|---|---|---|
| **Samoa** | Ministry of Commerce Industry and Labour | 100,000 |
| | Ministry of Agriculture and Fisheries; Fisheries Division | 327,000 |
| | Ministry of Health Department of Environmental Health | 500,000 |
| | **Total - Samoa** | **927,000** |
| **Solomon Island** | Department of Environmental Health | 2,080,000 |
| | Department of Agriculture and Livestock, Quarantine Division | 535,000 |
| | Ministry of Foreign Affairs and External Trade; Consumer Affairs Division | 30,000 |
| | **Total - Solomon Islands** | **3,590,000** |
| **Vanuatu** | Department of Industry and Trade; Ministry of Health, and various departments in the Ministry of Agriculture, Forestry and Fisheries | 700,000 |
| | Vanuatu Quarantine and Inspection Services, Department of Agriculture | 10,000 |
| | Various (Government, NGOs and Private sector) | 150,000 |
| | **Total - Vanuatu** | **860,000** |
| | **Grand Total** | **$5,377,000** |

*Micro costs*

Micro compliance costs are those incurred or met by producers, exporters and other intermediaries engaged in agrifood supply chains at the farm and firm-level when adhering to food safety and quality demands imposed at borders. While public standards and regulations have, in general, become more stringent, private or voluntary commercial standards[11], on the other hand, have not only increased in number and use, but also become more demanding on suppliers from developing countries. The bars are continuously being raised by big distributors on suppliers. More often than not, commercial standards are not only more binding than national and international legislation and regulatory requirements, but go beyond the framework of food safety compliance.

The British Retailers Consortium (BRC) was used as the benchmark to estimate and assess the micro-level costs of compliance in the focus PICs. Developed in October 1980, the BRC Global Standard has gained significant international recognition and acceptance for its content, format and supporting system.

The rationale for benchmarking the BRC standard to estimate and assess the micro-level compliance costs is two-fold. First, BRC is a 'one-stop-shop' standard which integrates; HACCP, quality management system (QMS), factory environment; and product and process control mechanisms. Second, as a single standard and protocol, it allows evaluations to be conducted by certification bodies accredited to key European standards. BRC's single verification system is appealing because that is all is required of suppliers from developing countries, and it also addresses due diligence requirements of both suppliers and the retailers.

The summary of the micro-level compliance costs for Samoa and Solomon Islands is presented below. These costs are grouped into two categories; (i) establishment (or setup) costs, and (ii) recurrent (or ongoing) costs. In order to revamp their recurrent activities, in particular, internal controls over procurement and product safety, Samoa and Solomon Islands need an injection of $25,000 and $78,500, respectively. Establishment costs, on the other hand, are estimated at $38,800 for Samoa, and $81,500 for Solomon Islands. The aggregate micro compliance costs for both countries is around $224,000, with Solomon Islands accounting for 71.4 per cent (or $160,000) and Samoa with 28.6 per cent (or $64,000).

[11] Private standards are defined as product and process attributes imposed by importing private enterprises on suppliers.

| European Union Requirements | Samoa | | Solomon Islands | |
|---|---|---|---|---|
| | **Setup Costs (US$)** | **Ongoing Costs (US$)** | **Setup Costs (US$)** | **Ongoing Costs (US$)** |
| 1. Traceability/Training (Solomon Islands) | 1,000 | 200 | 10,000 | 10,000 |
| 2. Record Keeping and Self-Inspection | 2,000 | 330 | 10,000 | 10,000 |
| 3. Site Management | 3,300 | 0 | 0 | 0 |
| 4. Risk Assessments | 1,500 | 300 | 1,500 | 1,500 |
| 5. Technical Services | 0 | 2,000 | 4,000 | 2,000 |
| 6. Laboratory Analysis | 0 | 6,000 | 5,000 | 4,000 |
| 7. Boat inspection and record keeping | 3,000 | 300 | 3,000 | 3,000 |
| 13. Waste and Pollution Management | 8,000 | 1,000 | 2,000 | 2,000 |
| 14. Worker Health, Safety and Welfare | 5,000 | 5,000 | 5,000 | 5,000 |
| 15. Environmental Issues | 5,000 | 200 | 1,000 | 1,000 |
| 16. Certification Costs | 10,000 | 10,000 | 40,000 | 40,000 |
| **Total Costs** | **38,800** | **25,330** | **81,500** | **78,500** |

Micro-level compliance cost estimates for Vanuatu, particularly with respect to organic and Fair Trade certification were incomplete. Of the few organizations and farmers that had achieved internationally recognized 'Fair Trade' and organic certification, estimation of compliance costs were confined to the direct costs of setting up appropriate quality assurance and food safety management systems.

## Major recommendations

Detailed conclusions and recommendations for each country are captured in the concluding sections of each country study. The major recommendations are those which have been sussed out of the individual country studies and packaged into three categories: national, regional, and international. Below are a select few in each category.

### National Level

- Establish food safety control and management systems (FSCMS) to help focus-countries adhere to standards, and laws and technical regulations imposed 'at and behind' borders.
- Create standards-setting organizations' to develop suitable tropical standards. However, to do this effectively, increased financial and technical resources are necessary to revamp the capacities of government ministries and departments, key agencies and the private sector.
- Revamp the capacity of national laboratories to internationally accredited levels so that they are equipped to verify product quality of exports and imports, and evaluate various parameters.
- Upgrade supply-enhancing capacities including physical infrastructure.

### Regional Level

- Establish i**nformation, surveillance and alert systems** to monitor pests, diseases and pesticide residues, and the spread and outbreaks of food borne diseases and food borne contaminations.
- Regional and sub-regional organizations in the Pacific region need financial and technical support from the international and regional organizations to increase **training and capacity-building** programmes for both the public and private sectors.

- Regional and sub-regional organizations need to review their policies and strategies to strengthen the capacity in standard-setting for food safety and of nutrition information.

## International Level

- Provide a framework to stimulate the **establishment of networks** between national and regional food-safety regulatory authorities, particularly at national or country level.
- Ensure **full and effective participation** of the Samoa, Solomon Islands, and Vanuatu is in setting globally relevant standards, such as Codex.
- Improve and revamp domestic food safety control and management protocols, infrastructure and institutional capacity, especially upgrading skills and technical know-how of producers and exporters so that they are able conduct **agrifood certification and maintain food safety standards in the** islands countries. This will stop dependence on external assistance for **certification and standards**.
- **UNCTAD** to seek financial and technical assistance from the STDF - within the framework of the SPS Committee of the World Trade Organization (WTO) - to implement projects as per the STDF grant applications completed and submitted to the STDF. The STDF and other development agencies (e.g. DfID, AusAID, NZAid, and the EU) are called upon to increase financial resources to implement projects and programmes in the Pacific region.

# BACKGROUND TO STUDY

## Overview

Production and trade of agricultural commodities and natural resources remain important drivers for broad-based economic growth and development among most of the 16-member regional grouping: Pacific Forum Countries.[12] Even though Pacific island countries (PICS) trade in merchandise exports accounts for a very small fraction of world trade, less than one per cent, dependence on commodities - for more than 50 per cent of aggregate merchandise exports - is high among most PICs. Whilst the global commodity landscape is changing as the share of commodities, particularly agricultural products, in world trade declines and developing countries lose market shares, for most of the island economies, commodities provide the only source of income for their small and fragile economies as well as livelihoods for millions of people gainfully engaged in the agrifood supply chains.

The army of producers and exporters engaged in commodity supply chains in PICs encounter myriad problems in international trade. Among them, are the lack of economies of scale, higher vulnerability to economic and physical shocks, poor supply chain linkages, and the tyranny of distance from major export markets. In spite of these constraints and other emerging problems, agri-food producers and exporters have to compete in progressively globalized and competitive world commodity markets.

In order to become competitive and remain ahead of the curve in international trade, primary producers and exporters and, all those in between, are expected to or have had to incur additional resource costs, oftentimes unbudgeted. These resource costs come in terms of costly quality management and assurance schemes, conformity assessment procedures[13], and supply enhancing infrastructure that to demonstrate compliance with both public/mandatory (e.g. Codex Alimentarius) and private/commercial/voluntary (e.g. EurepGap) standards.

Agrifood safety standards imposed in major export markets of interest to PICs are higher than national and internationally accepted standards. Presently, these standards are being aggressively imposed at various levels along the supply chain, driven largely by consumers and retailers at the behest of a growing pool of food safety- and quality-conscious consumers. Compliance, incidentally, is on the rise in these markets. And this poses significant resource costs and institutional challenges for smallscale producers and exporters in their efforts to demonstrate compliance to the multiple requirement sources - quality and public heath (ISO 9000), environment (ISO 14000), social concerns (SA 8000) and food safety management system (ISO 22000), not to mention, regulatory and corporate governance.

## Rationale

The panoply of technical regulations and laws pertinent to agrifood quality and safety standards - imposed at various levels - over concerns of human health, and animal and environmental safety have had a systemic effect on agrifood production and trade in all PICs. At the macro level, PICs experience, among others, erosion of trade preferences[14]and deteriorating terms of trade, particularly in light of declining commodity prices vis-à-vis the multiplicity of technical standards and rising compliance costs associate with them. At the micro level, cumbersome administrative obstacles (e.g. certification and quarantine procedures), agri-food rejects at borders[15], lack of technical and financial resources, and appalling infrastructure (e.g. food testing laboratories) imposes significant increases in operational and capital costs on local entrepreneurs that distorts the relative cost structures of domestic suppliers and impedes export trade growth.

In general, this has raised the ‘cost of doing business’ in the PICs relative to other countries in Africa, Asia and the Caribbean who have similar resource endowments and levels of economic development. Rising business costs exerts significant economic pressures on PICs where gross domestic product (GDP) per capita is low, and dependence on one or two major export commodities remains profound. Consequently, private and firm profitability suffers, local and foreign investment withers, and trade expansion (or growth) is curtailed as

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[12] The 16-members countries are; American Samoa (USA), Australia, Cook Islands, Fiji, French Polynesia (France), Guam (USA), *Kiribati*, Marshall Islands, Federated States of Micronesia, Nauru, New Caledonia (France), New Zealand, Papua New Guinea, *Samoa*, *Solomon Islands*, Tonga, *Tuvalu*, and *Vanuatu*. LDCs are emphasized (*italic*).

[13] Conformity assessment procedures include product testing, certification and labelling which are used by suppliers to demonstrate compliance with regulatory requirements.

[14] PICs enjoy trade preferences offered through numerous bilateral and regional trading arrangements, including the Economic Partnership Agreement between the EU-ACP countries

[15] A recent World Bank (2006) found that delays caused by cumbersome administrative obstacles at the borders reduce trade volumes by one per cent. One-day delay at the wharf reduced exports of highly perishable agrifoods by seven per cent, compared to long storage life agrifoods such as potatoes.

producers and exporters invest substantial resources in capacity-building, facilities and procedure and processes achieve and demonstrate compliance with food safety and quality standards, and laws and regulations. Ultimately, it has meant that many PICs, especially the five Pacific LDCs, are unable to benefit from trade liberalization - in terms of increased market access and growth in trade - as a result of the lowering of tariff rates and quantitative restrictions over the past 40 or so years.[16]

It is this sobering background which provided the impetus to launch the project – a *first* in the Pacific - where there is a real and urgent need for research and analysis as well as capacity-building in the area of agrifood safety and quality standards. Generous grant assistance; Euro €60,000 (or US$71,000), from the Government of Finland in 2006 enabled UCTAD to implement this project, which included the compilation of this study by a consultant, hosting of the sub-regional workshop, and costs of participants.[17]

## Objective

The four major objective of the study were as follows. First, to identify and quantify the costs of meeting agro-food safety and quality requirements of major commodities – fish and fish products, export tree-crops, and agri-food products – of export interest to Samoa, Solomon Islands, and Vanuatu. Second, to develop a framework with which stakeholders engaged in agrifood production and trade are able to estimate the costs of compliance[18] accruing to them. Third, to help strengthen institutional capacity – both public and private - in the three focus countries and, the Pacific region in general, so that they are better positioned to adhere to SPS requirements, and address the dynamic food safety issues and comply with market entry laws and regulations imposed in importing countries. Fourth, to improve domestic trade policy analysis and implementation is based on sound analysis of the marketing exigencies.

## Terms of Reference

The Terms of references (TOR) for the study were as follows;

- Undertake a study of SPS compliance and costs of agrifood safety and quality requirements in the Pacific Region, focussing on specific-studies on three - of the five - LDCs in the region, namely, Samoa, Solomon Islands and Vanuatu.
- Identify and quantify the compliance costs for commodity exports of 'major' economic importance to the PICs in general, and the five LDCs - Kiribati, Samoa, Solomon Islands, Tuvalu, and Vanuatu, in particular.[19]
- Country-level studies should be carried out in close consultation with key farmers, producer-organizations, industry organizations, exporters, suppliers and distributors in the selected PICs.
- Generic or Pacific-wide agri-food exports of interest to the three Pacific LDCs: coconut and coconut by-products, and fish and fish products. In addition, it should also integrate veal and kava in Vanuatu, and palm oil and palm kernel oil in the Solomon Islands.
- Develop a framework that helps estimate the costs of compliance accruing to agrifood producers, processors, traders or exporters when adhering to SPS compliance and agrifood safety and quality requirements.

[16] The World Bank (October 2005) study concluded that 93 per cent of the benefits - welfare gains - from trade liberalization stem from increased market access through the reduction of trade-distorting tariffs. This is supported by the OECD's recent (2006) study which puts the welfare gains at 79 per cent due to market access improvements.

[17] Participants who attended the sub-regional workshop in Port Vila, Vanuatu expressed gratitude towards the Government of Finland for providing funding for the workshop as well as the study.

[18] Compliance costs are understood to mean additional costs incurred by PICs' producers, producer organizations, quasi-government agencies, processors, traders and exporters in complying with technical standards to meet local and export market entry requirements.

[19] Field visits were not conducted in Kiribati and Tuvalu. As such, their compliance costs are reflected in the regional cost estimates.

## Methodology

Actual field-work - in Samoa, Solomon Islands, and Vanuatu - commenced mid-June 2006 and ended August 2006. During this period, baseline data was collected primarily through interviews[20] with key stakeholders, in the public and private sectors, engaged in SPS compliance and agrifood safety standards, regulation and certification protocols. Secondary and tertiary data were collated from national and regional institutions, and global sources.

The study benefited from the support, cooperation, and input of key stakeholders engaged in the agrifood chains of the three focus countries as well as the regional organizations, in particular, Pacific Forum Secretariat and South Pacific Commission, both located in Suva, Fiji, and the FAO sub-regional office, Apia, Samoa.

The draft study SPS compliance study, and the STDF grant application: project proposal on *kava* trade for Vanuatu, were completed in Late August 2006. Both documents were presented at the sub-regional training workshop convened in Port Vila, Vanuatu from 21-22 August 2006.

At this training workshop, not only were the documents presented and discussed in detail, but the participants also produced an 'Outcome and Recommendations' document which serves as roadmap for future work in the area of SPS and food safety quality and standards in the Pacific region.[21]

## Analytical framework

The study was undertaken on the understanding that it is part of the overarching framework of reviews - in the context of the Integrated Framework - which may lead to flow of Trade Related Technical Assistance (TRTA). The focus of this study was on agricultural and food commodities' sectors. The text pertaining to this relationship is summarized below:-

> "*…at the country level synergies and convergence should be built between TA projects; without losing their individuality, they should be folded within the Integrated Framework, which is a home grown coordination process offering a unified and inter-disciplinary approach to trade capacity-building. The relevance of projects will be enhanced as their objectives and activities are adjusted to the overarching goal of reducing poverty and transactions cost will be reduced, as a common body of diagnostic studies will be available to everyone._This also means that, on average, the government's burden of being involved in the formulation and coordination of numerous projects will be lessened, thereby making more resources available for Trade Related Technical Assistance TRTA/CB activities on the ground*…(to)*..work towards coordinating Trade Related Technical Assistance (TRTA/CB) programmes within the Integrated Framework (IF) as well as between bilateral donor programmes in the country… an attempt is made to enunciate …the relationship between (i) the IF and the Joint Integrated Technical Assistance Programme (JITAP), and (ii) the IF and the STDF*."[22]

With this is mind, the analytical framework of the study was anchored on four pillars; inventory, impact assessment, policy analysis, and strategies of technical assistance.

The starting point was to make an 'inventory of existing agri-food standards and SPS requirements' and their implementation in practice. These were then compared with international standards recognized under the SPS Agreements, specific standards adopted by importing countries, and private voluntary standards applied at firm level (e.g. EurepGap used by agri-food distributors). This was followed with recommendations on ways and means to harmonize and simplify these standards. The impact of these SPS standards on trade and other agrifood and quality standards were then assessed, especially, in relation to both the intrinsic nature of these standards themselves and the (limited) capacity of governments and commodity exporters in Samoa, Solomon Islands and Vanuatu to comply. Incorporated in the study is an evaluation of the institutional capacity and current national

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[20] Interviewees included government officials in key ministries, quasi-government agencies, regional organizations, producer organizations, research institutions, quarantine and inspection agencies, producers, traders, processors, retailers and exporters.

[21] Thirty-four ranking officials participated at the training workshop; 7 were women. Representatives from Samoa, Solomon Islands and Vanuatu attended, including Vanuatu's Minster for Agriculture, Honourable Miscellino Pipite (MP). As host country, Vanuatu also sent participants from the private sector, research institutions, quarantine and inspection agencies, and civil society organizations.

[22] UNCTAD, 2005. Integrated Framework for trade-related technical assistance for least developed countries, United Nations, New York and Geneva.

legislation which addresses SPS and cost of compliance in terms of agrifood safety and quality requirements both at public and private sector level.

The technical, institutional and policy constraints faced by governments and exporters in focus-countries in meeting SPS requirements on selected agricultural export products and fish and fish products were identified, quantified and compared to the mandatory and voluntary compliance costs both at national and private level.

Finally, a strategy was developed on how developed countries can best assist Samoa, Solomon Island and Vanuatu (and other developing countries) with appropriate technical support and expertise to improve local capacity in this area. As a 'way forward' and, in context, the STDF grant application is fundamental. This would help UNCTAD assess a country's requirements for further assistance in the area of SPS compliance and agrifood safety and quality standards. To achieve this aim, a deeper analysis was made of the technical constraints facing Vanuatu's agrifood producers, traders, exporters and quasi-government research and quarantine and inspections agencies based on its historical and current trade patterns. This was used to derive a basis for the ultimate objective of this report, which is to generate substantial resources for devising and implementing a bigger, more comprehensive and fully-fledged technical assistance programme on SPS compliance for the Pacific region.

## Currency conversions

| Country | Currency | US Dollar Equivalent (in 2007) |
|---|---|---|
| Australia | Dollar - AUD$ | 1 US$ = 1.33 AUD$ |
| Euro-currency countries; Europe | Euro - € | 1 US$ = Euro € 0.833 |
| Samoa | Tala | 1 US$ = 2.77 Tala |
| Solomon Islands | Dollar - SI$ | 1 US$ = 7.00 SI$ |
| Vanuatu | Vatu | 1 US$ = 111 Vatu |

# COUNTRY STUDIES

Cocoa pod (*Theobroma cacao* L.), Samoa

# SAMOA

## 1. SITUATION ANALYSIS: AGRICULTURAL AND FISHERIES SECTORS

### 1.1 Introduction

Part of the Samoan archipelago, the Independent State of Samoa, commonly abbreviated to Samoa, is comprised politically of the largest two islands in the group. There are also six other islands that comprise American Samoa. Savai´i is 1,820 square km (or 702 .7 sq. miles) and ´Upolu is 1,110 square km (or 428.6 sq. miles). The more heavily populated island is Upolu, where nearly three-quarters of the population live and where the capital city, Apia, is located. The climate is tropical, with a rainy season from November to April. Savai´i is still active volcanically, while ´Upolu is perhaps extinct. Vegetation types include littoral, mangrove, and swamp forests, and a range of rain forest types.

### 1.2 The 1900s

The current export situation of Samoa is a product of several programmes and problems some of which are deep rooted. Therefore a summary of the export situation facing Samoa today needs to be viewed in the context of the 1900s. Economic performance in the early 1990s was severely disrupted by two major cyclones and the taro leaf blight[23], which led to the shrinking of the real GDP by three per cent during 1989-1995.[24] Cyclone Ofa left an estimated 10,000 islanders homeless in February 1990. Cyclone Val caused 13 deaths and hundreds of millions of dollars in damage in December 1991. As a result, GDP declined by nearly 50 per cent from 1989 to 1991. Economic reforms were launched in 1993, which resulting in macroeconomic stabilization and comprehensive structural reform, which in turn contributed to rapid economic growth in the second half of the 1990s.

Despite the increase in services and in industrial activities, agriculture still remains a major area of economic activity. This is particularly so even after the collapse of the taro exports in the mid 1990s. The collapse of taro exports in 1994 has had the unintended effect of modestly diversifying Samoa's export products and markets. Prior to the taro leaf blight, Samoa's exports consisted mainly of taro ($1.1 million), coconut cream ($540,000), and 'other' ($350,000). Forced to look for alternatives to taro, Samoa's exporters increased the production of copra, coconut oil, and fish products ($2.36 million worth of copra, copra meal, coconut oil, and coconut cream) and fish ($1.51 million).

### 1.3 From 2000 to 2006

In 2001 Samoa identified the following priority areas in the development of renewable resources. Fruit tree development including the growing of citrus, mango, rambutan and other exotic fruits a project originally executed by the Food and Agriculture Organization (FAO). For Samoan fisheries the general aim was to make significant contribution to the sustainability of Samoa's inshore and offshore marine resources and to continue development of the nation's village-based and commercial fisheries by;

- ❖ institutional strengthening
- ❖ fisheries management
- ❖ fisheries extension and technical support
- ❖ fisheries related development

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[23] Taro leaf blight, caused by the fungus *Phytophthora colocasiae*, is a very serious disease of *colocasia* species. Its effect has been mitigated in recent years by the introduction of disease resistant species.

[24] Government of Samoa, 2001. Presentation made at the Third UN Conference on the least developed countries, Brussels, 14-20 May 2001 (Document ID: A/CONF.191/CP/19).

- project management

For fruit the high temperature forced air (HTFA) treatment plant was planned to provide facilities for the export of fruits and vegetables under quarantine conditions. Potential meat exports were to be facilitated by the establishment of an abattoir with a short term aim of providing facilities for hygienic marketing of beef, cattle and pigs. Food security was to be ensured to rural communities at all times (taro, bananas, cocoa, kava, poultry, aqua-culture and agro-forestry) by the establishment of simple demonstration plots, utilizing local resource which are easily maintained by the rural communities such as water control, intensification of food crops, diversification of food crops.

After two successive years of strong economic growth (over six per cent), Samoa's real GDP declined in 2002-03, owing to a sharp contraction in agriculture (caused by unfavourable weather conditions) and a slowdown in construction activity (due to the completion of several public works projects). Growth improved in 2003, but was then affected by Cyclone Heta at the start of 2004. The forecast for GDP growth in 2005 is 3.2 per cent. Inflation spiked to 16 per cent in 2004 due to the impact of Cyclone Heta at the start of the year.

The economy depends mainly on agriculture, fishing, construction, tourism and remittances. The agriculture sector, accounting for seven per cent of GDP in 2003, is regaining its strength from the aftermath of Cyclone Heta. The fisheries sector (15 per cent of GDP in 2003) has been in decline for several years due to low catch rates caused by poor weather conditions. However the copra and coconut by products industry virtually disappeared in 2005 with the closure of the last processing plant putting further pressure on agricultural export performance.

The construction industry (value-added construction of six per cent of GDP in 2003) has recently received a boost from preparation for the 2007 South Pacific Games and other planned private sector projects. Tourism earnings continue to grow, with an increase of four per cent from 2002 to stand at 17 per cent of GDP in 2003. Officially recorded remittances are about 30 per cent of GDP and have been increasing over time. Grants from development partners equal approximately 25 per cent of total revenue.

Samoa continues to enjoy political stability and demonstrate a commitment to sound economic management. With the positive results from its reform program in the 1990s, including rationalization of the public sector, Samoa has laid much of the ground work for continued good economic performance. The government now faces the challenge of building on its achievements to enhance the environment for private sector-led growth. The government has called for deregulation of the financial sector with continued fiscal discipline, and encouragement of investment, while protecting the environment. Programmes are underway which should help to improve the investment climate. These and other "second-generation" challenges, such as improving the capacity to use land for collateral and investment, may prove to be equally if not more challenging than earlier reforms, but are critical to provide the basis for future economic advances.[25]

Another major problem, both for the development of agriculture and forests, is land tenure rights, which is a rather complex issue in Samoa. For administrative and regulatory purposes, land is divided into customary land, freehold land and public land. Almost 80 per cent of land is under customary title. The basis for customary land ownership is the extended family, in which the Matai (family head) allocates the use of the family's land. In addition, there are communally-owned village lands, which are typically firewood gathering areas, beach landings, or unused lands which may be claimed by families by establishment of use. Finally, there are district lands claimed by traditional Samoan district councils. District lands are high mountain lands used primarily for hunting and gathering.[26]

## 1.4 Donor Coordination

Government funding for fiscal spending is highly dependant on external sources (80 per cent in 2001) which amounted to approximately 10 per cent of GDP. The Government has highlighted the need for improved coordination given the demands arising from its interaction with a large number of donors.

[25] World Bank; Country Chapter: Samoa, pp. 59-64.
[26] Brown, C., 1997. Regional Study - The South Pacific; *Asia Pacific Forestry Sector Outlook Study*, Working Paper No. 1; FAO, Rome.

## 1.5 Structure of the country report for Samoa

The next section concentrates on reviewing the historical and current status of Samoan agricultural export trade including recent and new developments that are not recorded in official statistics.

Leading on from the export review the existing and proposed fishing legislation treaties and conventions as well as EU and United Kingdom (UK) food legislation affecting Samoan fish and food exports are briefly reviewed in turn with the specific intention of highlighting required standards. An inventory of local standards and supporting institutions is then summarized in light of SPS requirements of the EU and UK. It is not the intention of this report to review EU an UK standards as these have been done elsewhere.[27] However the work in Samoa has been written with these standards as the guiding principle.

The final section estimates the costs of compliance when implementing the recommendations on a national and enterprise basis.

[27] For example, see recent country-specific *Costs of agri-food safety and SPS compliance* studies undertaken by the UNCTAD secretariat for Tanzania, Mozambique and Guinea.

# 2. FISHERIES AND AGRICULTURAL TRADE

## 2.1 Trade and agricultural production

The following summarizes the trends in recent years of Samoan agricultural and fisheries products. There have been two problems with the data. The first is that the data of both the EU and Samoa are by definition historical and secondly as can be seen by the introduction above the experiences of Samoa over the past 16 years have been characterized by numerous natural disasters which have impacted substantially on primary production.

## 2.2 The fishing industry in the Pacific Islands EEZs

The vast exclusive economic zones (EEZs) of the South Pacific Island countries contain a significant percentage of the world's fisheries and constitute a major economic resource of many of the smaller island States. The waters of the South Pacific are fished by some twenty distant water fishing nations (DWFN). Prior to the establishment of the Forum Fisheries Agency (FFA), the small island nations' negotiating position with DWFNs was weak. FFA provided the impetus and opportunity for member countries to pool information on their negotiations with DWFNs. In the South Pacific fisheries sector, standardization of minimum terms and conditions of fisheries access through the region was one of the most significant results of regional cooperation. Perhaps the greatest achievement in access negotiations was the conclusion of the Multilateral Treaty on Fisheries (MTF) with the USA. This highly complex treaty is regarded as a unique fisheries access agreement. It was pursued at the direction of the Forum and came into force in 1988. The treaty has become a benchmark for further multilateral negotiations with other major DWFNs.

### *2.2.1 Fishing industry in Samoa - an overview*

The main fishing resource in Samoan waters is the albacore tuna but also yellowfin and bigeye tuna species are caught in reasonable amounts. The approximate breakdown of species is shown in Table 1.

**Table 1. Principal species of fish caught in the Samoa exclusive economic zone**

| *Common Name* | *Scientific name* | *Use* | *% of catch* |
|---|---|---|---|
| Albacore | *Thunnuus alalunga* | White meat and canning | 85 |
| Bigeye | *Thunnuus albacares* | Sashimi fresh chilled | 10 |
| Yellowfin | *Thunnuus obesus* | Sashimi fresh chilled | |
| Skipjack | *Katsuwonus pelamis* | | |

The Albacore catch is regarded as a 'bread and butter' fish mainly destined for the canneries in American Samoa. The Bigeye and Yellowfin are of more interest to the fishing industry as they can be sold a chilled 'whole fish' i.e. gutted and de-headed only, to the sushi market in the United States.

While the tuna resources of the western and central Pacific are regarded as large, Samoan waters in terms of its EEZ only constitute one per cent of the total i.e. less than 120,000 $km^2$. This is due to the proximity of Tonga, Tokelau, Wallis and Futuna, as well as American Samoa.

The recent performance of the Samoan longline fishing industry is summarized in Table 2. This shows the rapid increase in fishing boats during the late 1900s followed by a consolidation during the early 21$^{st}$ century. This consolidation of the fishing fleet has seen changes in the types of boats used with a large number of the 11m boats being taken out of service and fewer larger boats partially replacing them. This has also seen the number of hooks set remaining at high levels though there was a drop in 2003 and 2004.

Recently catch rates have continued to fall though the data is slightly contradictory and in the case of the South Pacific only extends to 2002 (Table 3). Historical data relating to the South Pacific Albacore catch dating from 1950 shows that there is a strong seven to eight year cyclical nature to the South Pacific fishery and that Samoa's current experience of relatively low fish stocks fits in with regional and historical trends. Discussions with fishing boat captains and on-shore processors indicated that the 2006 season had been a good one so far.

**Table 2. Domestic longline activities in the Samoa exclusive economic zone (EEZ) 1996 – 2004**

| *Year* | *Active vessels* | *Total number of hooks* | *Total catch (mt)* | *Kg/100 hooks* |
|---|---|---|---|---|
| 1996 | 90 | 3,136,000 | 2,369 | 75.5 |
| 1997 | 170 | 6,623,000 | 5,720 | 86.4 |
| 1998 | 200 | 7,515,000 | 5,985 | 79.6 |
| 1999 | 175 | 8,309,000 | 5,112 | 61.5 |
| 2000 | 154 | 8,459,000 | 5,271 | 62.3 |
| 2001 | 149 | 8,610,380 | 6,180 | 71.7 |
| 2002 | 82 | 9,886,301 | 5,360 | 54.2 |
| 2003 | 30 | 7,167,831 | 2,846 | 39.7 |
| 2004 | 37 | 4,935,272 | 1,944 | 39.4 |

Source: Government of Samoa, 2005. 'Tuna Management and Development Plan - 2005 – 2009', Ministry of Agriculture and Fisheries, Fisheries Division, Apia, Samoa.

The Samoan Government data states that the Samoan EEZ currently accounts for less than 0.3 per cent of the Western Central Pacific Ocean (WCPO). However as a proportion of the South Pacific catch it appears as healthier being between 10 to 15 per cent of total fish taken. No data is given on the amount of fish taken by US ships under the MTF treaty but it is stated as being 'extremely limited'.

**Table 3. Samoan share of South Pacific Albacore longline catch**

| *Year* | *South Pacific Albacore longline catch (tonnes)* | *Samoa Albacore longline catch (tonnes)* | *Samoan as per cent of total* |
|---|---|---|---|
| 1996 | 24,500 | 2,369 | 9.67 |
| 1997 | 32,500 | 5,720 | 17.60 |
| 1998 | 40,000 | 5,985 | 14.96 |
| 1999 | 36,000 | 5,112 | 14.20 |
| 2000 | 40,000 | 5,271 | 13.18 |
| 2001 | 46,000 | 6,180 | 13.43 |
| 2002 | 46,000 | 5,360 | 11.65 |
| 2003 | No Data | 2,846 | - |
| 2004 | No Data | 1,944 | - |

Notwithstanding these figures the Samoan Government have embarked on a programme to manage the fish stocks and the fishing industry using a five year development plan entitled "Samoa Tuna Management and Development Plan 2005-2009"(STMDP). In broad outline the plan aims to ensure that Samoans benefit directly from the resource while beneficiating the product as much as possible within the country.[28] Some selected goals are outlined below.

- Regional conservation efforts under international treaties
- Review of legal framework; the objectives here are to comply with international obligations as well as ensure sustainability and management.[29] However it has been expanded to encompass market access objectives.
- Moratorium on licences
- Strengthening of tuna management capacity by, improving record keeping, monitoring vessels more closely, institutional strengthening, encouraging c-management of the fishery and developing a rural tuna management committee.
- In terms of the industry the encouragement of beneficiating (value adding) within Samoa is a priority
- Wharf facilities to be upgraded – this is currently underway under a grant from the Government of Japan.

[28] Many of the objectives and aspirations fall within the mandate of the consultant's terms of reference.
[29] Government of Samoa, 2006. *Fish Processing and Export Regulations of Samoa.* This is currently under parliamentary review.

- Identification of new market opportunities in addition to the chilled markets in New Zealand and the United States. The basis for this will be the introduction of Codex *Alimentarius* standards, HACCP and training.

## 2.3 Coconut and coconut by-products

This industry has been in significant decline for a number of decades and 2005 saw the closure of the last remaining oil extracting factory in the country. The pattern of coconut oil production, supply, and exports from Samoa from 1990 to 2005 is shown in Table 4.

**Table 4. Samoa - Oil; Coconut - Production, Consumption, Imports, and Exports** [30]

| *Date* | *Crush (1000 MT)* | *Production (1000 MT)* | *Total supply (1000 MT)* | *MY Exports (1000 MT)* | *Total distribution (1000 MT)* |
|---|---|---|---|---|---|
| 1990 | 18 | 13 | 13 | 13 | 13 |
| 1991 | 18 | 13 | 13 | 13 | 13 |
| 1992 | 18 | 13 | 13 | 13 | 13 |
| 1993 | 18 | 13 | 13 | 13 | 13 |
| 1994 | 18 | 13 | 13 | 13 | 13 |
| 1995 | 18 | 13 | 13 | 13 | 13 |
| 1996 | 15 | 9 | 9 | 9 | 9 |
| 1997 | 13 | 8 | 8 | 8 | 8 |
| 1998 | 12 | 8 | 8 | 8 | 8 |
| 1999 | 12 | 8 | 8 | 8 | 8 |
| 2000 | 12 | 8 | 8 | 8 | 8 |
| 2001 | 7 | 4 | 4 | 4 | 4 |
| 2002 | 7 | 4 | 4 | 4 | 4 |
| 2003 | 7 | 4 | 4 | 4 | 4 |
| 2004 | 7 | 4 | 4 | 4 | 4 |
| 2005 | 7 | 4 | 4 | 4 | 4 |

When looking at this table it is important to remember that the two cyclones that devastated the islands were in February 1990 and early 2004. This shows that the decline in the coconut oil industry is due to other factors at an industry and business level. Interestingly though, it is believed that if the rhinoceros beetle pest in Samoa were eradicated, the country could produce in excess of 40,000 metric tons of copra. The small size of the industry coupled with the closure of the coconut oil has had a significant impact on Samoa export volumes. As such, exports of coconuts and coconut by-products from Samoa in 2006 may amount to about 5 metric tonnes in total.

The value of trade with the EU reflects this negative trend. The EU imports shown in Table 5 are all for coconut oil and their absence in 2006 will halve Samoa's export earnings in that market during the course of that year. The other principal export from Samoa to the EU is textiles and these are also in decline.

[30] USDA available online at http://www.usda.gov/

**Table 5. European Union imports from Samoa 1999 to 2005** (in Euro € million)

| | *1999* | *2000* | *2001* | *2002* | *2003* | *2004* | *2005* |
|---|---|---|---|---|---|---|---|
| Agricultural products | 2.8 | 2.8 | 1.2 | 0.2 | 0.8 | 1.3 | 1.3 |
| TOTAL IMPORTS | 3.3 | 3.1 | 2.3 | 2.7 | 2.6 | 3.5 | 2.9 |
| Per cent of total imports | | | | | | | |
| Agricultural products | 86 | 88 | 52 | 6 | 30 | 38 | 46 |
| Index 1999 = 100 | 100 | 99 | 44 | 6 | 28 | 47 | 48 |
| **Total Imports** | **100** | **96** | **72** | **82** | **79** | **107** | **88** |

Source: Eurostat

## 2.4 Other actual and potential agricultural exports

There are some attempts to diversifying the export mix by a number of private companies and non-governmental organizations (NGOs). While generally small in scale at this point these developments do point the way to ways in which the economy could respond to unfavorable primary commodity prices by diversifying into higher value-added products and manufactures and finding "niche markets", despite the constraints typical of small island States. There are no trade or production statistics kept for these products but from interviews with several companies and NGOs the following list has been compiled;

- Noni (*Morinda citrifolia*) is used in many of the Pacific Islands as a traditional herbal medicine for a whole range of ailments. Recently noni products, particularly noni juice, have become popular in Western countries. A market boom has led to a proliferation of noni enterprises and is of increasing importance in Samoa.[31]
- Cocoa is of very high quality and was used in fine New Zealand chocolates. Most cocoa trees are Criollo-Forastero hybrids but the demise of the industry has been partially blamed on the importation of inferior cultivars
- Manufactured frozen food products primarily for the expatriate Samoan market in New Zealand. These include taro and breadfruit slices as well as a traditional Samoan dish made up of dalo leaves and coconut milk
- Dried fruit including bananas and papaya
- Honey; Bees in Samoa are free of all known pests and diseases. Therefore access to markets such as New Zealand and Australia could be easy. At present Samoa is a net importer of honey. Many parts of the islands are too wet for good beekeeping.
- Tropical fruit; There are some trials and germplasm collections of a number of tropical fruits at Nu'u Agricultural Station established under a FAO program. This is also the location of HTFA treatment plant established as part of a New Zealand aid program. About 700 kilograms (kg) per week of papaya is exported to New Zealand. Volumes seem to be declining.
- Vanilla and ginger; some experimental plantings are underway

All of these products could be sold as organic and fair trade certified

## 2.5 SPS issues with previous and newly developed exports

### Taro

As mentioned in an earlier section (1.1.2) taro was at one time a significant export crop from Samoa to the New Zealand to satisfy rising demand from a rapidly growing number of Pacific Islander's, including Samoan's living and working there.[32] At the time the crop revolved around four high quality cultivars. When the crop was devastated by disease there was an active program to introduce resistant cultivars. While the program itself was successful two things happened to ensure that Samoa never regained market share. Firstly growers in Fiji quickly

[31] Bourke, R.M., A. McGregor, M.G. Allen, B.R. Evans, B.F. Mullen, A. Pollard, M. Wairiu and S. Zotalis Solomon, 2006. *Solomon Islands Smallholder Agriculture Study* - Volume 1, Main Findings and Recommendations, AusAID, Canberra, Australia (ISBN 1 920861 68 8ISBN (series) 1 920861 46 7).

[32] The Pacific population is the growing 11 times faster than any other population group and, is expected to double by 2013 by 13 per cent, of New Zealand's total population.

moved into the vacant market and secondly once production restarted in Samoa it was from 'inferior' quality cultivars unfamiliar to their customers.

## Noni and Kava

These herbal remedies are exported to New Zealand, Australia and the United States. The herbal market in Europe is more regulated but there have been attempts to develop Noni and Kava exports there too. Noni juice is considered as a food and is therefore subject to the Novel Food Regulation of 1997. Under this regulation, any food first imported into the EU after 1997, has to be shown that it is not injurious to human health. Some countries such as Fiji have developed sizeable markets for noni products over the past few years. In a recent survey using data published in 2001,[33] the Secretariat of the Pacific Community (SPC) estimated the annual wholesale value of the Australia and New Zealand markets combined to be AUD$3.3–4.5 million and the retail market to be AUD$6.9–9.5 million

Acceptance of noni juice under the EU's Novel Food Regulation of 1997 has helped boost the market demand. However, expansion of the US market and other markets is seriously constrained by a lack of proof of noni's pharmacological efficacy. While it may be difficult to scientifically substantiate the beneficial health claims of noni, it is unlikely that it would be shown to be a food that is deleterious to health.[34]

For more details, readers are strongly encouraged to consult the following; a review of the legal and regulatory framework for noni (Appendix 6), legal opinion on EU ban on kava exports (Appendix 10), and the *Vanuatu Kava Promotion Council's* kava development project proposal (Appendix 11).

[33] Wilson, D., 2001. *A survey to assess the potential for Noni products in Australia and New Zealand*, Secretariat of the Pacific Community (SPC), Suva, Fiji.
[34] McGregor, A., 2006. *Solomon Islands Smallholder Agriculture Study*, Volume 3, Markets and Marketing Issues, AusAID Public Affairs Group, AusAID, Canberra, Australia.

# 3. EXTERNAL STANDARDS AFFECTING AGRICULTURAL AND FISHERIES EXPORTS

## 3.1 Introduction

This chapter is intended to provide a brief overview of the SPS issues facing Samoan food exports in order to put the inventory of standards and costs associated with market access into perspective. In many respects this report is treading a well worn path, particularly in respect of a recent study commissioned by the DevFish project[35] and, care is therefore taken to progress the issues, rather than rehash them.

## 3.2 International legal issues

International fish trading agreements - in the context of WTO - relevant to fisheries include;[36]

- Agreement on Sanitary and Phytosanitary Measures (SPS)
- Agreement on Technical Barriers to Trade (TBT)
- Agreement on Subsidies and Countervailing Measures
- Agreement on Import Licensing Procedures
- Agreement on Anti-Dumping
- Agreement on Rules of Origin
- Dispute Settlement

The Doha Agenda included a number of issues of improved market access, subsidies, environmental labelling, environmental agreements, as well as technical assistance and capacity building. Labelling requirements for environmental purposes may impact on trade and this needs to be examined as another TBT. In the fisheries sector, a number of eco-labels exist already, e.g. 'dolphin friendly'. The aim of these labelling programmes is to create market-based incentives for better management of fisheries by creating consumer demand for seafood products from well-managed stocks or from sustainable aquaculture. Although not yet prominent in any market, such labels raise questions about the lack of internationally agreed guidelines for labelling and certification among other issues. Certain supermarket chains in Europe, while not having specific eco-labels on product on their shelves, often insist on many or all of the label conditions being met.

The objective is to clarify the relationship between trade measures taken under the environmental agreements and WTO rules. These negotiations are relevant for both fish trade and fisheries management as several fish species now have become the object of multilateral environmental agreements (MEAs).

A review - undertaken by the author - of the Samoan fisheries management plan currently underway[37] indicates that Samoa takes its maritime treaty obligations seriously and that many of the current and potential issues raised by the Infofish Tuna Conference in Thailand have or are being addressed. As such there appears to be no significant additional barrier to trade raised in this instance other than the necessary costs of certification.

## 3.3 Japanese requirements

'Positive Listing' of tuna is required in Japan both for wild (November 2003) and farmed tuna (August 2004). On 1 December 2000, the Organization for Promotion of Responsible Tuna Fisheries (OPRT) was established in Tokyo, on the initiative of the Japanese fishing industry and with the support of the Government. Japan and Taiwan are the founding members while other nations such as Korea, China and Indonesia have been invited to join. The chief aim is to eliminate illegal, unregulated and unreported (IUU) tuna fishing operations that target the Japanese market. The aim is the following;

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[35] 'Development of tuna fisheries in the Pacific ACP countries (DEVFISH) Project.' Diagnostic Mission to the Samoa Competent Authority ruling the Sanitary Production of Fishery Products. Commissioned by the Pacific Islands Forum Secretariat, and the Secretariat of the Pacific Community, 18 March to 18 April 2006, submitted June 2006.

[36] Helga, J. 2004. International fish trade regulatory framework - INFOFISH Tuna Conference 3-5 June 2004, Bangkok, Thailand.

[37] Government of Samoa, 2005. 'Tuna management and development plan, 2005-2009', Ministry of Agriculture and Fisheries, Fisheries Division, Apia, Samoa.

- the elimination of flag of convenience (FOC) tuna longline fishing vessels operating throughout the world;
- collection and analysis of information concerning tuna imported into Japan in order to track the movements of FOC tuna fishing activities;
- the gathering of information concerning tuna longline fishing vessels; and
- the dissemination of information to consumers on products originating from FOC vessels.

At the same time, Japan has shown commitment to the FAO's Code of Conduct for Responsible Fishing by scaling down the national tuna longline fleet size by 20 per cent to 531 vessels. To protect resources and promote a responsible and sustainable tuna fishery, Japan has previously penalized IUU (illegal, unregulated and unreported) vessels by including them in a "black list". This black list prevented the vessels from landing their catches and selling them on the local market. The positive list applies to bigeye tuna and albacore and to longliners from the Pacific that are more than 24 metres long. Vessels will have to apply to the Ministry of Economy and Industry for permission to land their catches. Japan's ban on fresh, chilled and processed tuna was imposed in 1997 and continues to be upheld despite a declaration from the US Food and Drug Administration that neither smoked nor carbon-monoxide-treated tuna products pose any health risks to consumers.

Discussions with local industry show that there is no real incentive to supply the Japanese market even though Samoa could probably easily comply with the positive listing requirements. The main issue appears to be one of price and logistics.

## 3.4 United States (USA) and New Zealand regulations

The USA requires all fish handled for sale to be HACCP certified. A separate Food and Drug Administration (FDA) Certificate is also a requirement. The United States Department of Agriculture (USDA) will require country of origin labelling (COOL) for the retail sale of wild and farm-raised fish, including canned and pouch tuna. In order for a can or pouch of tuna to bear a 'Product of the USA' label, the tuna must be caught by a USA flag ship and processed in the USA or its Territories. If the tuna is caught by a foreign flag ship and/or processed in a foreign country, then the label must inform consumers accordingly. The intent of the COOL programme is to provide consumers with information on which to base their purchasing decisions.

The Samoan fishing industry through its proximity to American Samoa and in marketing 85 per cent of the catch to canneries there is well versed in these requirements. In addition the 10 tonnes of chilled sashimi grade tuna sent to California each week is done via importers who arrange for the required FDA certification. Exports to New Zealand are of the same magnitude as those to California and HACCP certifications are organize by the New Zealand Government.

## 3.5 European Union legal requirements

As mentioned above this has been the subject of a detailed review, in the context of existing and proposed Samoan legislation, earlier in 2006.[38] A brief overview of the DevFish Report, and the EU fish processing and marketing legislation in this regard (see Appendix 1). At the time of the DevFish report the EU applied international guidelines for microbiological criteria in respect of many foodstuffs by following the Codex Alimentarius guideline 'Principles for the establishment and application of microbiological criteria for foods CAC/GL 21 — 1997' in addition to advice of the Scientific Committee on Veterinary Measures relating to Public Health (SCVPH) and the Scientific Committee on Food. However this has since been replaced by (EC) No 2073/2005[39] of which the relevant extract is given in Table 6. *This is by way of illustrating the continuously changing nature of EU food legislation and regulations and it is important that national legislation, when enacted, reflect the changing nature of importing country or region laws.*

[38] Roberts, Steve. June 2006. 'Development of tuna fisheries in the Pacific ACP countries (DevFish) Project.' Diagnostic Mission to the Samoa Competent Authority ruling the Sanitary Production of Fishery Products. Diagnostic study commissioned by the Pacific Islands Forum Secretariat, and the Secretariat of the Pacific Community, 18 March to 18 April 2006.

[39] Commission Regulation (EC) No. 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs.

**Table 6. EC Commission Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs - Text with EEA relevance**

| *Food category* | *Micro-organisms/their toxins, metabolites* | *Sampling-plan* [a] | | *Limits* [b] | | *Analytical reference method* [c] | *Stage where the criterion applies* |
|---|---|---|---|---|---|---|---|
| | | n | c | m | M | | |
| Fishery products from fish species associated with a high amount of histidine [d] | Histamine | 9 [e] | 2 | 100mg/kg | 200 mg/kg | HPLC [f] | Products placed on the market during their shelf-life |

[a] n = number of units comprising the sample; c = number of sample units giving values over m or between m and M.
[b] M = m

[c] The most recent edition of the standard shall be used.

[d] Fish species of the families: Scombridae, Clupeidae, Engraulidae, Coryfenidae, Pomatomidae, Scombresosidae.

[e] Single samples may be taken at retail level. In such a case the presumption laid down in Article 14(6) of Regulation (EC) No 178/2002, according to which the whole batch should be deemed unsafe, shall not apply.
[f] Malle, P., Valle M., and Bouquelet S. 1996. 'Assay of biogenic amines involved in fish decomposition', *Jrnl AOAC International*, pp. 79, 43-49; Duflos, G., Dervin C., Malle P., and Bouquelet, S. 1999. 'Relevance of matrix effect in determination of biogenic amines in plaice (*Pleuronectes platessa*) and whiting (*Merlangus merlangus*)', *Jrnl AOAC International*, pp. 82, 1097-1101.

The intention is not to retrace in detail the work of previous recent studies but provide a summary of the relevant findings of the FFA/SPC Diagnostic Mission (see Appendix 3). Two crucial findings of the report in respect of legislation are;

- The principle of "farm to table" continuum
- The requirement for "traceability"

These are really two sides of the same coin and require that all those entities involved in a food supply chain track product through their system, including differentiating their suppliers and that this information is available to their customers in turn. In essence product must be traced back to a time and location in which it was produced. In the case of fishing this would be a specific boat and date of catch or in the case of a farm, a field and date of harvest. This requirement underpins the entire set of regulations relating to the hygiene of food.

There are restrictions on the use of carbon monoxide in the EU (banned for some time, but enforcement started only in early 2004) and the use of hydro protein in canned tuna is now banned in the EU (December 2003). These are not relevant to Samoa.

By their nature EU regulations and the national legislation of member countries is very dynamic target and in this light it would be inappropriate in terms of the DEVFISH report for a fish processing and food safety expert (Recommendation No. 2) to attempt to bring the legislation completely in line with current rules as a 'once off'. As mentioned in the report the general guidelines should be put in place together with a mechanism to review and adapt where necessary Samoan Seafood Regulations on a regular basis so as not to fall behind changing standards.

From an outsiders perspective EU regulations are somewhat complex but, as will be explored in the section on UK legislation, the legal onus for overall compliance as well as keeping abreast of changes is firmly in the private sector (see Appendix 1).

## 3.6 Specific UK legal requirements

### *3.6.1 UK Law*

This section is included here because the UK has been specifically targeted by one Samoan exporter as a high value market. The UK poses many unique opportunities and problems for agricultural and fish exporters. In essence this market enjoys the highest return for exporters but requires the highest compliance costs. As will be argued in more detail elsewhere in this report the aim of the Samoan fish industry should be to comply with the highest required global standards for two reasons;

- The incremental cost of achieving the higher standard is relatively minor
- The financial rewards of achieving the market penetration would far outweigh the costs

The key requirement of suppliers to the UK market is the concept of 'due diligence' that was introduced in the Food Safety Act 1990. Under section 21 of the Food Safety Act there is provision for a general defense of "all reasonable precautions and all due diligence" against principal offenses in the Act i.e.:

*"... it shall be a defense for the person charged to prove that he took all reasonable precautions and exercised all due diligence to avoid the commission of the offense by himself or by a person under his control…"*

The full text of section 21 is quoted in Appendix 2 together with some other key aspects of UK legislation affecting food because of the central importance this part of UK food legislation has assumed in the last 16 years. Due to the nature of food and food related issues in the UK the interpretation and 'defense' issues raised by section 21 have quite literally spawned an industry of measures to ensure that everyone within the food production, marketing and retailing industry has put in place written measures to prove that they have exercised all due diligence.

This has led to the development of a series of 'Codes of Practice' by UK retailers with their own interpretation of the Food Safety Act which have left all issues such as recommendations to include HACCP (or HACCP based systems such as European Retailers Protocol for Good Agricultural Practice - EurepGAP, and BRC) extended to on farm and other operations that impinge on food safety, including pesticide management. The main point here is that the UK Government has mostly left itself a regulatory role and put the onus on its food industry to police

itself. Backed up by a strong press and judicial system this is exactly what has happened. Other points to note are;

- Provision for regulations and orders to be made by or under, or having effect under the Act.
- That the level of any pesticide residue shall not exceed the maximum residue laid down for that pesticide.
- That no product containing in excess of the permitted MRL shall be put into circulation.
- Product must have been and will continue to be tested by the supplier in order to ascertain their compliance with the General Safety Requirements or relevant Safety Regulations.
- All descriptions applied to the goods are accurate and are not likely to mislead.

The USA and the UK, and the Food Safety Authority of Ireland have seafood consumption advisories for mercury exposure. These advisories, aimed at pregnant and breastfeeding women, women of childbearing age and young children, recommends that no swordfish, marlin or shark be eaten, and that tuna consumption be limited to one fresh tuna steak or two 8-ounce cans of tuna per week.

### *3.6.2 Organic Standards*

This section on organic standards is included as there was a significant amount of interest shown by some persons met in achieving this standard. Although fertilizer use in Samoa has increased dramatically in recent years it appears that most of the island still remains free of fertilizer and pesticide use. New Zealand has been helping with the organic certification but to ensure that this standard is acceptable for labelling in the UK the New Zealand organic certification bodies must be accredited by UKROFS and not just under Council Regulation (EEC) 2092/91.

## 3.7 Other obstacles to trade

The following problems have been identified as the key obstacles to exports:

**Supply side**

- Fish stocks are cyclical and smaller boats with out board engines are unable to fish far enough out to sea. Only bigger boats with inboard engines, able to set more hooks together with proper cooling facilities are able to get economic catches in periods of low catches.
- Lack of commercial farming and therefore no linkages to markets.
- Varieties and species inadequate to the international market.
- Market information is not available

**Export logistics**

- Lack of cold storage capacity – there are no cold storage facilities at the airport
- Cargo capacity is very limited at about 10 tonnes a week
- Air links: there are few flights and all airfreight is to or via New Zealand
- Freight charges prohibitively high
- Absence of accredited laboratories.
- Lack of technical support extension to and or EU standards

# 4. FOOD SAFETY CONTROL SYSTEMS

## 4.1 Institutions

A summary of institutions in the Samoa food industry is presented in Table 7 below. In Samoa, the primary institution involved in the review of the food regulatory system and standard setting system is the Samoan Ministry of Commerce, Industry and Labour (MCIL) via a Codex and food safety committee. The National Codex committee is a joint responsibility of MCIL, Ministry of Foreign Affairs and Trade (MFAT), Ministry of Health (MOH), and Ministry pf Agriculture and Fisheries (MOAF). Current administration of the 1967 Food Act is the responsibility of the Ministry of Health Inspection Service. The Ministry of Agriculture administers at least 15 Acts of Parliament and numerous subsidiary regulations and ordinances. The Quarantine Division of MOAF administers plant imports and exports with assistance from Crops Division within the Ministry as well as from the Ministry of Revenue (Border Control) (MOR). The fisheries legislation is administered by MOAF is the Fisheries Act of 1988. The new Act drafted in 2006 incorporates Industry Agreed Standards established by the Samoan Seafood Standards Council but has yet to be formally approved.

There are no **Bureau of Standards** facilities or institutions responsible for standard setting in Samoa. However there is a new **National Institute of Research and Development** is currently being set up that will become part of the National University of Samoa (NUS). It appears from some discussions at the national workshop held in Samoa that the remit for this organization may include standard setting, testing and food analysis.

The Ministry of Foreign Affairs and Trade (MFAT) is responsible for trade negotiations – WTO, EU-ACP, Pacific Agreement on Closer Economic Relations (PACER), PICTA. Samoa is a member of the IPPC and Codex. However the country has only been accorded observer status at the WTO. The designated SPS National Enquiry Point for Samoa is Mr Kirifi Pouono the ACEO of the Quarantine Division. The National Codex Enquiry Point for Samoa is Mrs, Iulia Petelo, who is the ACEO at MCIL. Mrs, Petelo at MCIL chairs the Codex Committee in cooperation with MFAT, MOH, and MOAF. The Codex Committee reviewed the 1967 Food and Drugs Act. There are no food testing facilities in Samoa within the various ministries. And there are also no fruit marketing standards.

There are plans for a market research and information services division within the Ministry of Agriculture. At the moment this function is carried out by the Crops Division, MOAF. Currently awareness and information on quarantine requirements of export markets is the responsibility of the Quarantine Division of MOAF. For these sections to operate more efficiently they need to be strengthened in terms of human resources and information, communication and technology (ICT) systems.

**The Quarantine Division** in the MOAF is the National Plant Protection Organization. This division is responsible for surveillance, quarantine, inspection and issuing of the Phytosanitary Certificates. The **Crops Division** within the MOAF are jointly responsible with the Quarantine Division for maintaining border protection through awareness campaigns, monitoring compliance, the Pest Risk Analysis (PRA) process, Border controls are the joint responsibility of the MOAF and MOR. The quarantine division believe that they are about 12 staff short of that needed to carry out their duties properly (there are 30 working in the Division currently).

**The Crops Division** in the MOAF is responsible for research into new alternative export crops initiated by a now completed FAO project abut 16 different species (with a range of cultivars of each species) of fruit trees in orchards at the Nu'u research station. In addition they get requests for fruit from potential importers from other countries which are passed on to potential growers and grower organizations.

**The Fisheries Division** of MOAF is charged with the management of all fish stocks within the Samoan EEZ. They are, in cooperation with the EU, in a review of the legal framework regulating fish exports, the vessel licensing system, looking at ways to strengthen tuna management capacity, monitoring and enforcement of fishing laws. Monitoring and enforcement are in cooperation with the police. Together with the fish processing companies and coastal communities there is a campaign to promote conservation of all marine resources. The Division is also managing the fishing berths and wharfs used by the fishing industry. A range of other projects are underway or are planned for the period 2005 – 2009;

- Shore facilities in other parts of Samoa
- Development of a Fish Aggregating Device (FAD) programme
- Small scale Processing (e.g. jerky)
- Restructuring of Fisheries Department

- Training - including food safety standards
- Quality control of exports
- Improvement in catch data collection

**The Ministry of Health** participates in reviews of the Food and Drugs act and actively inspects premises involved in food production and handling.

There is a Samoa Seafood Safety Council between the Government - through the MOAF - and the seafood industry which meets on a regular basis.

**Table 7. Institutions involved in food safety control**

| *Organizations* | *Key actors* | *Activities* |
|---|---|---|
| **Governmental Institutions** | | |
| Ministry of Commerce, Industry and Labour | Commerce | Chairs national Codex committee, Food and Drug Act revision, Fair Trading |
| Ministry of Foreign Affairs and Trade | | Trade negotiations – WTO, EU-ACP, PACER, PICTA, Invest Promotion, - to a small extent -Codex, Food and Drug Act revision, Fair Trading |
| Ministry of Agriculture | Quarantine Division | Inspection and Phytosanitary certificates, Training, Development of regulation |
| | Crops Division | Study on potential for exports of fresh fruits; deals with fruits and vegetables research and training; operates the HTFA facility; engaged in the Codex committee, and Food and Drug Act revision |
| | Fisheries Division | Management of fisheries, boats industry, export certification, trade negotiations with EU (as Samoa Competent Authority), HACCP inspections. Codex committee, Food and Drug Act revision |
| | Nu'u Research Station | Study on potential for exports of fresh fruits; deals with fruits and vegetables research and training; operates the HTFA facility |
| Ministry of Health | | Participate in Codex committee on revision of food legislation: Food and Drug Act, Participate in standard setting |
| | MOH Inspectorate | Factory and workplace inspections |
| | National Health Laboratory, General Hospital, Apia | Possible microbiological testing |
| | Samoa Water Authority | Water potability testing |
| | USP Alafua Campus | Physical and chemical properties of food |
| **International Institutions** | | |
| World Health Organization (WHO) | | Policy, public health and laboratory investments |
| Food and Agriculture Organization of the UN (FAO) | | FAO; Observer at Samoan national Codex committee. Provides support in terms of workshops and information on food standards and guidelines on drafting of legislation e.g. through portal www.IPFSAPH.org |
| European Union (EU) | | Potable water and potability testing |
| **Private sector institutions** | | |
| Producers / Exporter | Apia Export Fish Packers Ltd | Fish processing and exports |
| | CJ Exports and Imports Ltd | Fish processing and exports |
| | Tradewinds Fishing Company Ltd | Fish processing and exports |
| | Apia Longline Ltd/Primefish Exports Ltd | Fishing boat owners |
| | Women in Business | Range of horticultural enterprise developments some of which could become important to Samoa |

## 4.2 Analytical services

There are a limited number of laboratories in Samoa.[40] They include:

- Teaching laboratories at the University of the South Pacific Alafua Campus
- National Health Laboratory at Apia General Hospital
- Water testing laboratory at *Popole o le Suavai* (the Samoa Water Authority)

There is a fourth laboratory at Samoa Breweries and a regional food laboratory in Fiji which are included below although they were not visited by the author.

**Teaching Laboratories at the USP Alafua Campus**
The school of Agriculture is planning to expand to provide a wider remit that will include Food Technology as part of its course content. The new name "School of Agriculture and Food Technology" came into effect in January 2006. However little has changed although there are plans to recruit two new Food Technology lecturers to the University in either 2007 or 2008.

Until then the teaching laboratory facilities have not been upgraded and testing is limited to the physical and chemical properties of foods (and soil) and no microbiological facilities exist. There is an operational Atomic Absorption Spectroscope (AAS) at the faculty. Unfortunately this is set up for Ca and Mg only. About Euro €10,000 would be needed to upgrade this AAS to test for mercury. The facilities are many years away from meeting Good Laboratory Practice (GLP), quality control or achieving accreditation.

**National Health Laboratory at Apia General Hospital**
It is difficult to see that this laboratory could become a suitable facility for food analysis or acquiring any form of accreditation without a major injection of funds.

**Water testing laboratory at *Popole o le Suavai* (the Samoa Water Authority)**
This laboratory provides the required standard of analytical service. Although just limited to water it is invaluable in establishing water potability at processing plants. This is a crucial area as potable water is required, not only for the factories, but also for making the ice kept on board the fishing vessels for chilling the catch.

**Microbiological laboratory at Samoa Breweries.**
There was some discussion at the national workshop that this laboratory would be suitable for food testing.[41]

The options for the establishment of a local foods and seafood testing laboratory in Samoa in the short to medium term are extremely limited. Therefore prices and availability of similar laboratories in Fiji and New Zealand are given in Table 9. More detail on UPS, including correspondence with the director of the laboratory Professor, Bill Aalbersberg, is given in Appendix 7.

### Table 8. Number of laboratories per institution and test to be accredited

| LAB. ORGANIZATION | NUMBER OF LABS | TEST METHODS | QUALITY MANUALS |
|---|---|---|---|
| USP Alafua Campus | 1 | N/A | N/A |
| Apia General Hospital | 1 | N/A | N/A |
| Samoa Water Authority | 1 | 30 | None |

[40] All three laboratories were visited by the author (see Tables 8 and 9 for details).
[41] The author was unable to visit the breweries due to time constraints.

**Table 9. Regional testing facilities and approximate price comparison (US$)**

| Laboratory | Mercury $ | Histamine (one sample) $ | Histamine (multiple samples) |
|---|---|---|---|
| IAS/Suva Fiji | 50 | 60 | 5% discounts for 3-10 units and 10% for more than 10 units |
| ESR/Auckland, NZ | $130 for a 2x5sample composition and then $45 for subsequent composites | 100 for first two samples | 40 for subsequent samples |
| Cawthron/Nelson, NZ | 40 | 70 | 40 |

All laboratories in Samoa would require substantial recruitment of new staff together with training of existing and new staff. Substantial sums of money for equipment and funding for salaries and consumables would be necessary.

**Institute of Applied Sciences, USP, Suva, Fiji**
The Institute of Applied Sciences is the consulting arm of the School of Pure and Applied Sciences at the University of the South Pacific. Over 150 types of test are available for water, food, food microbiology, and soils. The University of the South Pacific is a regional university shared between Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga and Vanuatu. The food unit, directed by Professor Bill Aalbersberg, has four full time staff and has become the designated regional resource centre for food testing.

## 4.3 National legislation

The key legislation governing food safety is the Food and Drug Act 1967 and the Quarantine Act of November 2005. The Food and Drug Act is in the process of revision by a Codex committee headed by MCIL with technical participation from MOH, and MOAF (and possibly MFAT) in order to comply with the EU legislation and Codex requirements and to incorporate new requirements such as traceability, HACCP, MRLs, contaminants and pesticide limits.

The Quarantine Act, recently revised and passed into law in November 2005 with considerable input and assistance from Australia Agency for International Development (AusAID), does not need further revision. More challenging will be the incorporation of the 'farm to fork' requirements, which will demand the assistance of an expert consultant and extensive stakeholder consultations to decide what obligations producers and traders will have to meet.

The launching of the information system – called the Pacific Islands Pest List Database (PIPLD) is an important part of the workings of the Quarantine Division giving up to date information on the pest status of the various countries and islands. There are no national fruit quality standards in Samoa. There is a need to invest in standard building of fruits of potential economic interest. It is equally important to promote these standards by carrying out information and education campaigns.

## 4.4 Projects

AusAID, together with help from the International Plant protection Convention (IPPC) and the Secretariat of the Pacific Community (SPC), have recently completed a project to upgrade the Samoan quarantine service. This may be summarized as follows:

- Writing, review and passing of a new Quarantine Act
- Workshops and training of staff in various aspects of IPPC requirements including IRA's and pest list maintenance
- Support for attendance at the IPPC workshop in Canada

- Help with the (SPC) on-line information system – the Pacific Islands Pest List Database (PIPLD) (see Appendix 4)

The New Zealand Government supports individual certifications for organic, HACCP and Fair Trade using NZ-based certification companies.

Recently, a consultant - Steve Roberts - completed a needs assessment for Samoa to establish an effective Competent Authority of EC Sanitary and Phytosanitary measures on Samoan exports to the EU at the request of the Samoa Fisheries Division following (see Appendix 3).

The Japanese Government is involved in a substantial programme of providing new facilities to the Samoan fishing industry. This is one of the largest capital projects in Samoa and will provide upgraded wharfs, docks, buildings (including a fish packing factory), offices and a fish market in downtown Apia.

The EU is involved in an interlocking series of potable water projects encompassing the entire country of Samoa. As part of these projects *Popole o le Suavai* (Samoa Water Authority) have established a water testing laboratory. This appears to be the only operational laboratory in Samoa that provides a reasonable level of analytical service and provides a valuable contribution to testing water potability at fish processing plants.

WHO are involved in three areas of the Samoan health sector.[42] These are:

- a review of existing legislation and the drafting of new policies and guidelines
- Provision of technical assistance to the Ministry of Health
- Provision of TA for among other things, upgrading of laboratory facilities.

There was a New Zealand supported food safety project which finished its inputs in 2003. The aim was to "*protect and sustain Samoa's seafood exports through the development and implementation of appropriate national seafood policies.*"

The FAO Sub-Regional Office for the Pacific is based in Apia but is more involved in regional capacity building in terms of food safety and security than in national projects. They have observer status at the Samoan national Codex committee. Given limited resources for any one Pacific country they are promoting regional approaches to issues relating to food safety. In particular they are supporting a regional food testing laboratory at the Institute of Applied Sciences, University of the South Pacific (USP), Suva Campus, Fiji Islands.

## 4.5 Macro costs of compliance

To improve its food safety control system, the regulatory institutions need to develop appropriate standards and legislation, develop systems for assessing conformity to standards, train its staff and promote standards, improve information flows, develop effective mechanisms for the control of imported and exported produce and improve participation in international standards setting.

The breakdown of the key institutions analysed and the type of inputs necessary to meet them are presented in Table 10. The cost estimates were collected during the interviews with key stakeholders (see Appendix 12). A summary of the costs of compliance is presented below.

[42] World Health Organization, Country Cooperation Strategy at a Glance - Samoa

**Table 10. Estimated macro costs of compliance (Summary) – Samoa**

| *Organization* | *Objective* | *COSTS (USD)* |
|---|---|---|
| Ministry of Commerce Industry and Labour | Review and Update Legal Framework | 100,000 |
| | Sub-Total | 100,000 |
| Ministry of Agriculture and Fisheries; Fisheries Division | Review and Update Legal Framework | 25,000 |
| | Develop Capacity to Deal With SPS Issues (Quarantine recruitment) | 50,000 |
| | Develop Inspection Capacity | 72,000 |
| | Develop Export Certification Capacity | 20,000 |
| | Strengthen Information, Surveillance Systems | 10,000 |
| | Promote Implementation of Quality Standards | 50,000 |
| | Improve Participation in International Standards Setting (SPS) | 50,000 |
| | Recruitment | 50,000 |
| | Sub-Total | 327,000 |
| Ministry of Health Department of Environmental Health | Review and Update Legal Framework (cost included in MCIL cost) | |
| | Develop infrastructure (laboratory and testing) | 300,000 |
| | Improve Information Systems | 100,000 |
| | Promote Implementation of Safety Standards | 50,000 |
| | Improve Participation In International Standards Setting | 50,000 |
| | Sub-Total | 500,000 |
| **Total Costs** | | **927,000** |

## 4.6 Producers and private sector

### *4.6.1 Key players*

There are three companies that remain active in the fishing industry and comply with FDA requirements for the USA tuna fish canneries in American Samoa. These companies are all located in Apia harbour and have New Zealand HACCP accreditation for their packing operations only. Tradewinds Fishing Company Ltd. has temporarily closed down its packing factory for two months while their premises are being completely rebuilt. Apia Export Fish Packers have a FDA certificate obtained with assistance from their California marketers.

The only significant attempt at export development of certified agricultural products is Women in Business where Organic and 'Fair Trade' certification have been arranged by Oxfam and the New Zealand Government. There is no demand for GAP certification of growers in the target markets of Australia, New Zealand and the USA. Fair Trade and Organic certified cocoa beans were getting a substantial premium from one chain in California, USA.

There are no certification companies in the region and all inspections are carried out by New Zealand companies. In all cases (for the fisheries and agriculture) HACCP, Fair Trade and Organic certification costs are borne by the New Zealand Government and NGOs in that country.

### *4.6.2 Micro costs of compliance*

Cost of compliance with food standards for private producers were calculated using compliance with BRC for a fish processing factory as a case study. The validity of the approach is demonstrated by the importance of the EU as the preferential market of Samoan fish exports and by the importance of this protocol in the UK. Additionally, given the comprehensiveness of this protocol, it is a good model for the analysis of the costs of compliance with other protocols as well.

The philosophical basis of BRC is presented in outline in Appendix 2. A summary of the costs of compliance is presented below. These costs are based on the cost of labour (the main input) in Samoa and the consultants own experience with implementing a similar system as there is no real experience in Samoa with the costs of BRC type compliance. The cost of constructing a factory for production and processing frozen loins is estimated at US$1.52 million (or 4 million Tala).

**Table 11. Summary of estimated micro costs of tuna fish BRC compliance - Samoa**

| EU REQUIREMENTS | SETUP COSTS (USD) | ONGOING COSTS (USD) |
|---|---|---|
| 1. Traceability | 1,000 | 200 |
| 2. Record Keeping And Self-Inspection | 2,000 | 330 |
| 3. Site Management | 3,300 | 0 |
| 4. Risk Assessments | 1,500 | 300 |
| 5. Technical Services | 0 | 2,000 |
| 6. Laboratory Analysis | 0 | 6,000 |
| 7. Boat inspection and record keeping | 3,000 | 300 |
| 13. Waste and Pollution Management | 8,000 | 1,000 |
| 14. Worker Health, Safety And Welfare | 5,000 | 5,000 |
| 15. Environmental Issues | 5,000 | 200 |
| 16. Certification Costs | 10,000 | 10,000 |
| **Total Costs** | **38,800** | **25,330** |

## 4.7 Trade impact on Samoa of European Union standards

An exercise was carried out by the consultant to assess the impact of trade restrictions i.e. inability to access the EU market for frozen tuna loins. The current situation is shown (Table 12) where the delivered price for frozen fish sent in containers to the cannery in American Samoa is 7.2 Tala per kg. The price for the frozen fish (Sashimi grade as described in Table 1) exported to California and New Zealand is substantially higher at 19.69 Tala per kg.

**Table 12. FOB values, transport costs and prices, for frozen tuna in various markets (in US$)** [3]

| | *American Samoa (1)* | *Los Angeles and New Zealand (2)* | *London (Billingsgate) (4)* |
|---|---|---|---|
| Prices (per kg) | 2.59 | 7.09 | 16.85 |
| Freight cost (per container) | 1,85 | 2,79 | 3,366 |
| Freight (per kg) | 1.00 | 1.39 | 2.24 |
| Price less freight | 1.60 | 5.70 | 14.61 |
| Free-on-board (f.o.b.) | 2.16 | 5.04 | 5.04 |

(1) Whole fish for processing

(2) Chilled and partially prepared in Samoa

(3) 2.77 Tala = 1 US$ (or 1 Tala = US$0.36)

(4) Frozen loins prepared in Samoa (50 per cent of landed weight of fish is exported)

However, prices for Albacore loins (50 per cent of the landed weight of the fish) in the Billingsgate market are in the region of 46.8 Tala per kg. This is for the inferior Atlantic tuna.

Using data from the current market split between sales to American Samoa, California and New Zealand and, assuming that 15 per cent of the total current catch (i.e. value adding Albacore by producing frozen loins for the UK fish market within Samoa) could be diverted from American Samoa to the EU, the simulation results are shown below (Table 13).

**Table 13. Samoan tuna exports - 15 per cent of total catch diverted to European Union (frozen Albacore loins)**

| *Current marketing 'split' of Samoan tuna exports (in per cent, kg and US$)* | | | | *Possible split with European Union access* | | |
|---|---|---|---|---|---|---|
| | % split [1] | Kg | US$ [2] | % split | Kg | US$ |
| Total average catch (1996 to 2004) | 100 | 4,531,889 | | 100 | | |
| To American Samoa | 80 | 3,625,511 | 5,808,069 | 65 | 2,945,728 | 4,719,056 |
| Chilled to US mainland | 15 | 679,783 | 3,876,396 | 15 | 679,783 | 3,876,396 |
| To European Union | 0 | 0 | | 15 | 679,783 | 4,963,778 |
| **Total exports** | | **4,305,294** | **9,684,465** | | **4,305,294** | **13,559,230** |
| **Net Gain** | | | **0** | | | **3,874,765** |

[1] an estimated five per cent of the average annual catch is sold locally

[2] Samoa Tala 2.77 = 1 US$ (or 1 Tala = US$0.36)

The table is based on the average annual catch between 1996 and 2004 and the figures on market prices were agreed as representative by all processors for California and American Samoa prices and by one processor for the Billingsgate price. With this scenario it can be seen that the net cost to Samoa of non access to the EU fish market could reasonably be estimated at being in the region of US$3.6 million (or 10 million Tala) annually. Assuming a wage bill of 10 per cent of sales this translates into between 20 and 40 jobs costing around US$1,080 (or 3,000 Tala) per month. It must be emphasized that this section of the report does not purport to be a market study but is a scenario based on a data given to the consultant by one processor. However, the figures are suggestive enough of the necessity for more serious market research in this area by industry stakeholders.

The cost of construction a loin processing factory in Samoa has been estimated US$1.52 million (4 million Tala) so any such study would have to be done with care to ensure that these calculated gains could be realized in practice.

# 5. CONCLUSIONS

In large part because Samoa is small and remote from larger world markets it has seen a steady long term overall decline in agricultural and fish exports despite significant resources being devoted to this sector. The closure of the last coconut oil extracting plant in 2005 sees this trend continuing. Exports of fish are dominated by regional opportunities represented by the canneries in American Samoa. The cyclical nature of the fisheries has, moreover, seen significant restructuring and consolidation of the Samoan fishing industry in the period 2000 - 2005.

These activities have seen attempts by Samoans in the government and private sector to develop other exports where niche markets and value adding present specific opportunities. All of these require significant upgrading of Samoan food and certification standards in terms of the legal framework and regulatory and laboratory capacity. Where there has been a highly focused effort on the part of an outside aid agency, notably AusAID in the case of Quarantine legislation and enforcement, the results are world class. In other areas progress is slow and haphazard.

There are two main areas which require differing approaches. In the short term Samoa will require significant help to review its new Fisheries Act and the currently being drafted Food ad Drugs Act in order to ensure that they comply with international norms – particularly those of the EU. In addition Samoa will have to continue to rely for HACCP certification of exporters and export consignments from New Zealand and Australia. Care must be taken that such certification is suitably accredited for other target markets such as the USA and EU but this seems reasonable to expect.

In the longer term; there are no significant resources within Samoa for food testing and the likelihood of development of these is years away from being achieved, if ever. There appear to be prospects, however, that many of the needed resources do exist in Fiji and could be accessed relatively easily. From information available these facilities appear to have been recently accredited both in terms of the laboratories and test methods and can continue to be if resources are made available.

Currently there are a number of entrepreneurs within Samoa who with targeted short term help in the form of food technologists working to EU and UK standards could achieve the required standards relatively easily. Such technologists could rapidly develop HACCP based ‘operational rules’ with fishermen, processors and MOAF inspectors that would comply with the full range of EU directives.[43] For example some boats and processing plants may require alterations and all industry workers will require formal i.e. recorded, training in hygiene. It is certainly possible to take advantage of immediate and near term market opportunities that are currently unavailable to Samoa without going through the entire gamut of initiatives currently underway. It would be of great benefit to supply targeted assistance to enable specific companies and organizations within Samoa achieve EU compliance and certification ahead of Samoa generally. There is no reason why this should not be possible.

[43] The requirements are not particularly onerous but need to be reviewed by someone experienced with practical issues of compliance. For example, most boats seen and visited by the consultant could relatively easily comply with Council Directive 92/48/EEC of 16 June 1992 laying down the minimum hygiene rules applicable to fishery products caught on board certain vessels in accordance with Article 3 (1) (a) (i) of Directive 91/493/EEC Official Journal L 187, 07/07/1992 P. 0041 - 0044.

# Solomon Islands

## 1. TRADE IN AGRI-FOOD PRODUCTS

### 1.1 Agricultural production and trade

Comprising a scattered double chain of islands the Solomon Islands is the third largest archipelago in the South Pacific. In the 1980's the economy of Solomon Islands experienced steady but modest economic growth of 4.1 per cent per annum which was facilitated by high levels of both public and private investment totaling between 25 and 30 per cent of GDP in that period.[44] In the first half of the 1990s, however, the annual increase in real GDP rose to seven per cent but this growth was unsustainable being based on an excessive rate of logging about three times the estimated rate of regrowth. In 1996 economic growth fell to 3.5 per cent and in 1997 turned negative falling to -0.5 per cent.

Foreign grants, loans, and direct investments helped to maintain a relatively high investment level in the country during the period from 1980-1995 but led to dependence on the resources and goodwill of the international donor community. Overall investment and development progress could have been significantly faster – if domestic finances had been managed in a more orderly and transparent manner and macro-economic stability had been maintained (Government of Solomon Islands, 2001, p.3).[45]

By 2000 and 2001 export composition had changed very considerably and the export sector began to consist of a diversified package of products, including palm oil, copra, coconut oil, cocoa, gold and tourism apart from timber – the country's main export product.

### 1.2 Incomes

Fishing, forestry, and agriculture are the principal productive sectors contributing to the Solomon Islands economy. In the fishing sector (nine per cent of GDP in 2003) Solomon Taiyo Ltd (the only producer for export markets) resumed its operations at about 40 per cent of capacity, after its suspension in mid-2000. Fish exports are estimated to be 17 per cent of total exports in 2003-04.

The forestry sector (seven per cent of GDP in 2003) was relatively unaffected by the 1999-2003 unrest. Timber exports accounted for almost 60 per cent of total exports in 2004-5. However this level of dominance by timber is not sustainable due to the high extraction rate and the slow re-growth of native hardwoods. Although agriculture accounted for only five per cent of GDP in 2003, its economic and social significance is far greater, as more than 80 per cent of the population relies on subsistence agriculture for its livelihood. Cocoa represented about 5.5 per cent of total exports in 2005 while copra represented around three per cent. Overall, agriculture exports as a share of GDP are expected to grow substantially 2005-06 mainly as a result of the reopening of the palm oil mill and good organic growth in copra and coconut oil exports due to higher world prices.

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[44] Government of Solomon Islands, 2001. "Programme of action for the development of Solomon Islands, 2001-2010", Country presentation at the Third United Nations Conference on Least Developed Countries, Brussels, 14-20 MAY 2001., Prepared by the Ministry of Planning and Human Resources Development. (Document ID. A/CONF.191/CP/44, 23 April 2001).

[45] Ibid.

Most Solomon Islanders live in isolated rural communities dependent on subsistence agriculture and intermittent crop and small livestock sales. Transport between islands is difficult and expensive.

## 1.3 Recent political history

From late 1998 to mid-2003, Solomon Islands (SI) was badly affected by civil unrest known as the 'ethnic tension'. The period of greatest disruption was 1998–1999. The ethnic tension resulted in the collapse of palm oil production, and contributed to a decline in production of copra and cocoa (see Table 14). Export revenues halved and rural income-generating opportunities were reduced. Production ceased at Solomon Islands Plantation Limited (SIPL), Gold Ridge and Solomon Taiyo, and employment opportunities fell significantly. During this period the Solomon Islands fell into arrears with respect to all its external creditors, including the World Bank, and the Asian Development Bank.

The National Agricultural Research Station at Dodo Creek was destroyed, resulting in the loss of research facilities, research equipment, the library and other important information resources, as well as displacement of skilled people. In addition, the food and tree crops collection at Tenaru, and the livestock breeding stock and cocoa seed garden at Tenavatu on Guadalcanal, were abandoned, and looted by militants. Field experimental stations in four locations were also abandoned. Most facilities at the National Agricultural Training Institute at Fote on Malaita were destroyed or looted during the ethnic tension. It is important to emphasize, however, that many of the problems in the agriculture sector preceded the ethnic tension.

In its recovery strategy, the Government has made the production sector, and in particular agriculture, a priority, but has not provided much in the way of resources. In 2004, the Solomon Islands Government's budget to the Department of Agriculture and Livestock (DAL) was 1.7 per cent of overall allocations. The draft 2005 budget allocates $6.8 million more to DAL, so their allocation will actually rise to 2.6 per cent in 2005. Most of this increase will go towards specific project initiatives in oil palm production and rural rice production. Rice is not likely to be viable crop in the context of Solomon Islands agriculture and given its low imported price.

In April 2006 Snyder Rini was appointed prime minister. Rioting and looting followed which included the destruction of much of downtown Honiara. Many claimed Rini, who had previously served as deputy prime minister, was beholden to Chinese interests. Eight days later he stepped down. The opposition candidate, Manasseh Sogavare, was then sworn in as prime minister. He had campaigned to remove the Regional Assistance Mission for Solomon Islands (RAMSI)[46] but indications are that this entity will remain for the present until a pre-agreed set of objectives have been achieved.

## 1.4 General trade patterns

These are shown in Tables 14, 15 and 16. Throughout the 1990s, the main agricultural exports were copra, coconut oil, palm oil, palm kernel oil, fish and cocoa (Tables 14 and 15). Destination markets are primarily in Asia with mainland China followed closely by Japan the primary destinations for Solomon Islands (Table 16). There is unfortunately no data on what each market takes from Solomon Islands but from discussions most of the value added product is destined for the more distant markets in Europe whereas commodity items are shipped within the region.

Data from the EU (Comext) site for EU trade with Solomon Islands is summarized in Table 17. This shows robust yearly growth of 60 per cent for trade in agriculture and fish products but there is no detailed breakdown of the items.

### 1.4.1 Palm oil

The SIPL oil palm plantation on the Guadalcanal Plains was closed and its offices and mill destroyed during the ethnic tension in 1998. Production has just resumed in the past few weeks (July 2006) as the Guadalcanal Palm Plantation Oil Limited (GPPOL). This is now operating as a subsidiary of the New Britain Palm Oil Company Limited in PNG with full access to their existing markets. The mill has been rehabilitated at a cost similar to that of rebuilding it from scratch and many of the buildings destroyed during the ethnic tension have been restored. Active rehabilitation of the existing (mature) palm plantations and planting of new ones are already underway.

[46] Islands Business, July 2006, Vol. 32, No. 7

Palm nuts are currently shipped to PNG for processing there but there are plans to process them in Solomon Islands as soon as equipment can be installed.

The market prospects for oil palm products in general appear to be favorable. Palm oil, given its efficiency of production as well as recent price rises in the mineral oil markets, can expect to gain more value than other vegetable oil in a freer world trade environment. Analysis of oil palm production on Guadalcanal is likely to indicate similarly favorable position.[47]

**Table 14. Solomon Island commodity exports excluding timber - 1987 to 2000** [48]

| Year | SI$/US$ | *Coconut oil* | | *Copra* | | *Oil palm (Palm Oil and Palm Kernel)* | | *Cocoa* | | *Fish* | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ‘000 tonnes | FOB US$ | ‘000 tonnes | FOB US$ | ‘000 tonnes | FOB US$ | ‘000 tonnes | FOB US$ | ‘000 tonnes | FOB US$ |
| 1987 | 2 | | | 27.9 | 4.8 | 14 | 4.4 | 2.7 | 4.8 | | 25.1 |
| 1988 | 2.11 | | | 27.2 | 7.1 | 16.9 | 7.8 | 2.6 | 3.5 | | 35.5 |
| 1989 | 2.34 | | | 35.1 | 8.8 | 29.1 | 9.7 | 3.2 | 3.4 | | 27.8 |
| 1990 | 2.53 | 3 | 1.0 | 32.6 | 4.3 | 28.4 | 7.6 | 3.5 | 4.5 | 18 | 21.0 |
| 1991 | 2.72 | 2 | 0.7 | 29 | 3.8 | 26.7 | 7.7 | 4.3 | 5.0 | 43.1 | 39.1 |
| 1992 | 2.93 | 3.4 | 1.9 | 27.8 | 7.3 | 37.1 | 13.1 | 4.5 | 4.9 | 33.7 | 30.0 |
| 1993 | 3.18 | 3.4 | 1.5 | 30.1 | 5.8 | 37.7 | 12.0 | 3.9 | 5.3 | 21.9 | 26.0 |
| 1994 | 3.24 | 0.5 | 0.6 | 18.1 | 6.1 | 22.8 | 13.6 | 2.6 | 3.9 | 31.6 | 18.2 |
| 1995 | 3.41 | 1.5 | 1.2 | 28.8 | 9.6 | 37.1 | 21.1 | 3.5 | 3.9 | 49.5 | 42.7 |
| 1996 | 3.53 | 2.5 | 1.6 | 16.2 | 6.7 | 34.3 | 17.9 | 3 | 3.7 | 29.9 | 29.8 |
| 1997 | 3.73 | 5.6 | 3.4 | 26.4 | 9.8 | 36.7 | 19.9 | 3.6 | 4.6 | 34.6 | 34.8 |
| 1998 | 4.82 | 7.2 | 4.0 | 18.3 | 5.7 | 36.9 | 19.5 | 3.5 | 4.7 | 34.1 | 26.8 |
| 1999 | 4.93 | 10.3 | | 23.2 | 8.0 | 16.1 | 13.2 | 2.4 | 4.9 | | 32.0 |
| 2000 | 5.11 | 8.6 | | 19 | 6.8 | 8 [49] | | 2.3 | 1.8 | | 8.1 |

[47] Bourke, R.M., A. McGregor, M.G. Allen, B.R. Evans, B.F. Mullen, A. Pollard, M. Wairiu and S. Zotalis Solomon, 2006. *Solomon Islands Smallholder Agriculture Study* - Volume 1, Main Findings and Recommendations, AusAID, Canberra, Australia (ISBN 1 920861 68 8ISBN (series) 1 920861 46 7).
[48] Ibid.
[49] United States Department of Agriculture (USDA).

**Table 15. Solomon Islands value of exports of selected commodities in US$: 2001-2005**

| Year | ***Total Exports*** | *Frozen Fish* | *Fish Canned* | *Fish Smoked* | ***Total Fish*** | *Copra* | *Palm Oil* | *Palm Kernel* | *Cocoa* | *Coconut Oil* |
|---|---|---|---|---|---|---|---|---|---|---|
| | **US$ '000** | | | | | | | | | |
| 2001 | **119,913** | 55,215 | 715 | 409 | **56,338** | 317 | - | - | 3,789 | 257 |
| 2002 | **159,471** | 19,464 | 1,715 | 56 | **21,236** | 468 | - | - | 12,080 | 51 |
| 2003 | **213,716** | 14,047 | 1,884 | 1,084 | **17,015** | 4,558 | - | - | 19,384 | 67 |
| 2004 | **253,366** | 27,637 | 2,191 | 11,470 | **41,298** | 9,830 | - | - | 13,443 | 186 |
| 2005 | **186,761** | 9,136 | 2,310 | 82 | **11,528** | 5,589 | - | - | 10,222 | 564 |

Source: Solomon Islands Statistical Office

**Table 16. Value of exports by country of final destination and year: 2001-2005**
**(US$ '000)**

| Country of Final Destination | Year ended on same period | Years ended as at December | | | | |
|---|---|---|---|---|---|---|
| | % Change | 2001 | 2002 | 2003 | 2004 | 2005 |
| **OCEANIA** | **-19.0** | **2085** | **1780** | **5129** | **6339** | **5131** |
| Australia | -37.1 | 1364 | 750 | 3,433 | 4,597 | 2,890 |
| Papua New Guinea | -27.3 | 137 | 392 | 602 | 178 | 130 |
| New Zealand | -15.2 | 220 | 181 | 717 | 651 | 552 |
| Fiji | 1,386.5 | 106 | 70 | 104 | 58 | 865 |
| Vanuatu | -28.6 | 83 | 184 | 81 | 753 | 538 |
| Other | 54.7 | 176 | 203 | 191 | 102 | 158 |
| **ASIA** | **27.5** | **29,063** | **44,589** | **61,594** | **74,713** | **95,261** |
| Japan | 63.0 | 15,297 | 19,950 | 19,233 | 19,534 | 31,843 |
| Singapore | -19.2 | 693 | 1,951 | 3,956 | 4,871 | 3,935 |
| South Korea | -9.9 | 3,283 | 105 | 971 | 12,695 | 11,436 |
| Hong Kong | 16.7 | 1,015 | 3,250 | 602 | 1408 | 1643 |
| China | 45.8 | 1,219 | 7,116 | 17,773 | 23,728 | 34,586 |
| Taiwan | 108.3 | 2 | - | 186 | 95 | 197 |
| Philippines | -28.7 | 4,434 | 5,650 | 6,654 | 7,089 | 5,053 |
| Thailand | 67.2 | 979 | 1,315 | 763 | 2,460 | 4,112 |
| Indonesia | 521.0 | - | 53 | 3,683 | 41 | 254 |
| Malaysia | -14.5 | 1,064 | 2,397 | 2,878 | 2,202 | 1,882 |
| Other | -45.7 | 1,076 | 2,803 | 4,895 | 591 | 321 |
| **EUROPE** | **29.3** | **916** | **962** | **2,912** | **6,612** | **8,549** |
| United Kingdom | 19.3 | 491 | 29 | 59 | 142 | 169 |
| Germany | 28.4 | 355 | 855 | 1,541 | 4,578 | 5,877 |
| Denmark | 0.0 | 2 | 27 | 30 | - | - |
| Belgium | 25.2 | 24 | 25 | 1,280 | 1,758 | 2,202 |
| Netherlands | - | 44 | - | 1 | 3 | - |
| Sweden | 128.2 | - | - | - | 132 | 302 |
| Other | 0.0 | - | 26 | 1 | - | - |
| **AMERICA** | **-4.4** | **2,194** | **738** | **1,621** | **3,814** | **3,647** |
| USA | -4.4 | 2,194 | 738 | 1,543 | 3,814 | 3,645 |
| Other | + | - | - | 78 | - | 2 |
| **Other regions** | **3.9** | **2** | **-** | **186** | **95** | **98** |
| | | 0 | 0 | 0 | 0 | 0 |
| **Total Exports** | **23.1** | **34,261** | **48,069** | **71,442** | **91,573** | **112,687** |

Source: Solomon Islands Statistical Office

**Table 17. European Union imports from Solomon Islands ('000 Euro)** [50]

| TDC section per year | 2004 | 2005 |
|---|---|---|
| Live Animals, animal products | 111 | 257 |
| Vegetable Products | 3,634 | 3,882 |
| Prepared foodstuffs, beverages, tobacco | 3,537 | 7,311 |
| Products of the chemical and allied industries | 0 | 44 |
| Wood and articles of wood | 18 | 17 |
| Base metals and articles of base metal | 24 | 284 |
| Machinery and mechanical appliances | 41 | 15 |
| **Agriculture and fishing total** | **7,282** | **11,450** |
| **Total** | **7,427** | **11,867** |
| Agriculture as per cent of total | 98 | 96 |
| Growth per cent | | 60 |

## 1.4.2 The fishing industry

The fishing industry in the Solomon Islands exported US$11.53 million of fish during the course of 2005 out of total exports totaling US$186.76 million i.e. just over six per cent of total exports. It must be put in the context of the relatively unsustainable level of the timber component of exports which amount to US$43.19 million or almost 60 per cent of the total value. The Solomon Islands have reserved the internal sea, the New Georgia Sound ('The Slot') for domestically based fishing fleets which, in practice is solely fished by Soltai. The primary species caught in The Slot is the Albacore tuna using pole and line vessels. Outer seas within the EEZ in the South Pacific Ocean north east of Choiseul and Santa Isabel are fished by National Fisheries Development Limited (NFDL) using purse seiners.[51] Various treaties allow access to FFV's from Japan, and South Korea, among others. The total South Pacific fleet of purse seines is estimated at 190 vessels. No specific information is available on the access agreements but local fishing companies agree that these seas are intensively fished including the use of purse seine nets and this is confirmed Colin Hunt (2001). There was agreement that the current levels of fishing were unsustainable and were possibly not properly policed by Solomon Islands Government.

In the Solomon Islands this industry is dominated by two companies based in Noro on the island of New Georgia. This is a remote island in the Western Province of the Solomon Islands. Noro is about 90 minutes by plane north east of Honiara. Soltai Processing Ltd has a canning and processing factory serviced by its own fishing fleet in Noro. Additional fish is supplied to Soltai by NFDL. Both companies export frozen fish for European and American canneries but this is the main income of NFDL.

[50] Trade-C-2 (BS) source: COMEXT rs4 Part 2: Analyse by country - Page 62 of 79 by TDC import from Solomon Is.

[51] Hunt, C. 2001. *The Capture of National and Local Sustainable Benefits from Pacific Marine Resources*, Presented at the Workshop entitled "Commodity-based Development in Pacific Island Countries", Nadi, 18-20 September 2001, National Research Institute, Papua New Guinea.

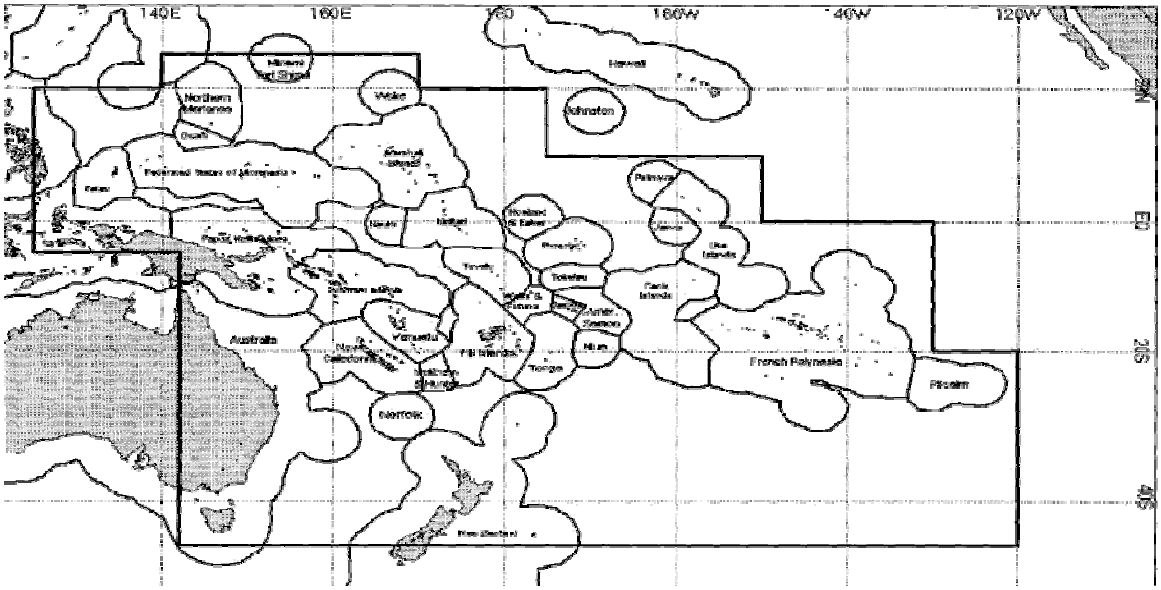


Figure 1; EEZs for South Pacific. Solomon Islands EEZ is to East of PNG. 'The Slot' is the north western sea between the two island chains of Solomon Islands.[52]

Soltai at Noro in the Solomon Islands has been badly affected by low tuna prices combined with the poor security situation. The Japanese partner left and thus Soltai Fishing and Processing Limited, was formed, 51 per cent owned by Government through the Investment Corporation of the Solomon Islands and 49 per cent by the Western Province Government. The cannery had been a drain on the Solomon Islands Government generating little tax income. There was a steady accumulation of losses, made worse by a heavy debt burden together with large management fees and sales commissions.

The very large question that hung over the operation was whether it could export profitably the very high quality 'dolphin free' tuna together with finding the high capital sums required to retain access to EU markets. The former Japanese partner forgave all inter company debt when it exited which has helped. Although the plant was significantly run down, the Solomon Islands management team has been successful in attracting investment from Trimarine in Europe which installed US$ 3.5 million worth of equipment for the loin production facility which is to be repaid out of a price differential on frozen loins delivered to their European canning factory. However the probable elimination of 'List 2' status countries (partial EU compliance) means that Solomon Islands tuna fishing boats and the Soltai factory requires significant investment in upgrading to meet the higher standards.

### 1.4.3 Coconut and coconut by-products

## Copra

In 2001 and 2002, production and export of copra and copra oil collapsed due to a combination of events related to the collapse of the Commodities Export Marketing Authority (CEMA), the ethnic tension, and economics (Table 15). Production of copra began to increase in 2003 to about half the average export levels for the period 1990–1998 but is declining again. Most of this is exported as copra, but some small-scale milling has also restarted. The recovery can be attributed to a combination of factors:

- comparative advantage in copra production
- desperation of many rural households for cash income
- ability of coconut palms to survive neglect
- a period of relatively favourable copra prices
- collection centres established by CEMA
- the private sector is increasingly involved in copra trading.

Copra production is still about half of potential. Making copra is a financially viable enterprise, provided there is an operating marketing system in place. This viability extends to replanting, provided that some inputs are supplied to farmers. For many, copra provides the only reliable source of income. The market for copra is very competitive and new demand for copra for biodiesel is ensuring that the exit of

[52] Ibid.

CEMA has probably been beneficial in the long run. However CEMA are still involved in the issuing of export licences for copra.

The stock of coconut palms in Solomon Islands is relatively young but there has been very little systematic replanting over the past 20 years. Compared to many other major commodities, the market prospects for edible oils appear reasonable. Production of coconut oil specifically faces competition, however, from oil palm.

**Coconut by-products and downstream processing**
There are high-value coconut products offering greater value including virgin coconut oil (VCO) and coconut oil as a diesel substitute. In this instance, the term 'virgin' is cold pressed raw and unrefined oil pressed without raising the temperature more than 35$^{o}$C above melting point. The end product has a neutral clear colour and a distinct coconut flavour. VCO differs from copra pressed oil which requires chemical-based refining, bleaching and deodorising before it can be used as edible oil. Kokonut Pacific has achieved organic certification as well as a precursor 'Fair Trade' status which gives additional consumer appeal. More details are given in Appendix 5.

Several mini-mills producing virgin oil have been established in Solomon Islands involving a process termed Direct Micro Expelling (DME) of oil from coconuts, a process which bypasses conventional copra-making. There are niche markets which command premium prices for such oil. The DME mills in Solomon Islands have made a promising start and now account for projected sales of 200,000 litres in 2006. This modest volume, however, is now a significant item in Solomon Islands exports by value (Table 15). Solomon Islands also require a vibrant and growth coconut industry for its domestic market. The copra equivalent of coconuts consumed as food in Solomon Islands is estimated at 20,000 tonnes and considerable volumes of edible oil are imported. With the availability of VCO, much of this imported oil is being replaced.

Coconut oil 'biofuel' can substitute for diesel for lamps, power and transport. Some copra is processed into non food grade biodiesel and about 800 tonnes of this grade of oil has been manufactured in Solomon Islands over the past 4 years. Currently the coconut oil cannot be used without blending as there is no equipment in Solomon Islands for the removal of glycerine and free fatty acids which causes glazing of diesel engine cylinders. Unrefined coconut oil, however, can be used blended with kerosene and diesel. Current production capacity of this grade of oil in Solomon Islands is about three tonnes per day. Equipment to remove glycerine and free fatty acids would cost US$1.71 million (or SI$12 million) and some pre-feasibility work has been done in this regard. Coconut oil of this grade costs SI$3.80*l* (or US$0.54*l*)*)* to produce against a current retail price of diesel which is $SI$ 7.50*l* (or US$1.07*l).*

Other coconut by products include body and hand lotions, soap and copra meal. There is interest in exporting the meal to Australia as animal feed should it achieve organic certification.

### 1.4.4 Cocoa industry

Cocoa is now the only other significant agricultural export crop (Tables 14 and 15). Average production for the nine years prior to the ethnic tension was 3,500 tonnes per year. Exports fell during 1999–2002, but increased markedly in 2003 before falling back in 2004-5. The robustness of the predominantly smallholder cocoa industry during these difficult times can be attributed to a number of factors:

- Cocoa, as part of a traditional mixed cropping system, gives reasonable returns to labour even when prices are relatively low.
- Cocoa marketing was deregulated and was not affected by the collapse of CEMA in the same the way as the copra industry.
- Marketing system remained intact in the production areas.
- Buyers actively seek cocoa beans.
- Cocoa was able to absorb higher shipping costs due to its high unit value.
- Solomon Islands smallholders receive a reasonable return for effort for planting and maintaining cocoa.

Despite the low yields of cocoa, the industry is a generator of foreign exchange and there is potential to increase cocoa production and exports. Increased production needs rehabilitation of existing village cocoa, abandoned plantation cocoa and improved production techniques in existing stands together with replacement of existing cocoa stands with improved and black pod–tolerant planting material from the PNG Cocoa and Coconut Institute. Cocoa quality enhancement is achieved through improved fermentation and drying.

The primary destination for the cocoa is to a single factory in Malaysia where total exports from the Solomon Islands constitute less than one per cent of the requirements. There has been no move to beneficiate the beans in

Solomon Islands. Buyers in the Solomon Islands all deal with a Sydney based broker that procures on behalf of the factory. A significant number of buyers and exporters operate in Solomon Islands, buying from a large number of growers. Production is from a number of islands including Malaita, Choiseul, and Guadalcanal.

## 1.5 Other actual and potential agricultural exports

### Coffee

Small amounts of both arabica and robusta coffee are produced in Guadalcanal. A small roaster-buyer takes in washed and fermented beans from a number of growers around Honiara and markets about 500kg of ground beans per month. Growers are paid US$1.14 (or SI$8.00) per kg for robusta and US$2.86 (or SI$20.00) per kg for arabica. Arabica coffee is produced in locations above 700m in altitude whereas the robusta is mainly grown in the coastal plain. There is probably no real economic case for coffee production in Solomon Islands except in terms of import substitution.

### Minor crops

There has been some discussion of developing vanilla, Solomon Islands indigenous nuts, such as ngali nut (*Canarium* spp) and cutnut (Barringtonia spp). There is no evidence of significant commercial interest at present.

## 1.6 Aid projects in the agricultural export industry

### Australian Centre for International Agricultural Research (ACAIR)

ACIAR has a significant number of completed projects in the Solomon Islands, covering culture of a range of fisheries species, marine protected areas, stock assessment and fisheries management policy; farming systems economics; production and diseases of root crops; insect pests; biological control of pests; and forest tree nutrition.[53] ACIAR's program has a strong fisheries emphasis, including economic and technical research to support the industry. ACIAR has a long-term commitment to cooperation with Solomon Islands, but until recently the program has been hindered by a difficult political and security situation.

The loss of field station and laboratory infrastructure in the national agricultural research system (NARS) means probably that collaboration in on-farm research and the involvement of NGOs will play a more important role in agricultural service delivery.

Income generation initiatives will be important in the broader scheme of recovery in the Solomon Islands, and much of this necessarily needs to be in agriculture, forestry and fisheries. Immediate assistance could include small, short-term technical interventions in areas where ACIAR projects have developed significant expertise elsewhere in the region. It is important to obtain post-crisis data as a basis for priority setting and identification of market opportunities.

Projects could encompass the following areas: assistance with major pest problems affecting the smallholder honey industry; advice on smallholder poultry feeds using local ingredients; analysis of forestry plantation trials; further development of the local Canarium nut industry; mariculture species for coastal communities, including sea cucumbers; identification of the factors behind the reported yield decline in sweet potato; major pest problems affecting food security; and technologies for vanilla production.

### AusAID

A recently (2006) completed study by AusAID has made several recommendations for improving rural livelihoods and generating broad-based growth.[54] The high priority components are aimed at offering a high demonstrated economic rate of return with a wide distribution of benefits targeted at disadvantaged areas and which can be implemented within a three-year timeframe. These priority areas are to;

- enhance domestically marketed food
- increase production of quality copra and cocoa

Six medium priority components have been identified as:

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[53] Australian Centre for International Agricultural Research (ACIAR) website; Pacific\lcds\Solomon is\ACIAR - Country Solomon Islands.htm

[54] Bourke R.M., A. McGregor, M.G. Allen, B.R. Evans, et al., 2006.

- increase production of VCO
- stimulate village-level food processing for the domestic market
- increase pig production for the domestic market
- increase poultry production for the domestic market
- facilitate production and sale of indigenous edible nuts
- stimulate production of spices for the domestic and export markets.

Low priority components are:

- increase beef cattle production for the domestic market
- stimulate honey production for domestic and export markets
- stimulate commercial development of non-timber forest products from indigenous trees

## 1.7 SPS issues with previous and newly developed agricultural export products

The issue of TBT in developing new export crops was raised on a number of occasions. The two examples that are most frequently referred to are that of noni (Appendix 6) and kava (see Appendix 10 and Appendix 11). However these crops have been effectively eliminated as potential exports from Solomon Islands for the foreseeable future though noni may continue to be developed out of Fiji Islands.

# 2. FOOD SAFETY CONTROL SYSTEMS

## 2.1 Government and statutory institutions

Key institutions involved in commodity exports from Solomon Islands are listed in Table 18. In the Solomon Islands, the primary institution involved in the review of the food regulatory system and standard setting system is the Department of Environmental Health (DEH). It is also the Solomon Islands Competent Authority for engaging with the EU on trade in fish and fish products. The National Codex Enquiry Point for Solomon Islands is based at the Environmental Health Division (EHD) which falls under the Ministry Health and Medical Services (MHMS)

Legislation covering food safety is the Pure Foods Act 1996 which is administered by MHMS/EHD. The Pure Food (Fishery Products) Regulations were made effective in 1 February 2006 after a transition period of a year. This designates EHD as the Solomon Islands Competent Authority for fish exports to the EU. Currently Solomon Islands is a 'List 2' (partial compliance) exporter of fish to the EU. The intention of the EU is to eliminate all 'List 2' exporting countries by either promoting them to full 'List 1' status (full compliance) or delisting. There is apparently no date set as yet for the phasing out of the 'List 2' status. The USA is a 'List 2' country which may be influencing the current delay. The fish regulations are selectively applied to Soltai and NFDL as full enforcement would make non EU bound seafood products uneconomic. Currently there are no food testing laboratories in the Solomon Islands outside of the in-house facilities at Soltai in Noro. EHD have four inspectors trained by the EU in enforcing The Pure Food (Fishery Products) Regulations 2006. Two are based at Gizo in the Western Provincial capital, one at Noro and the fourth at Honiara.

The Pure Foods Act (1996) is being reviewed in two respects. The first is to ensure that changes in international practice are incorporated into the act, probably via new regulations. The second is the issuing of General Regulations for Local Food Manufacturing and Sales which were written several years ago but never issued. The purpose of these regulations is to have a more realistic set of rules for local and regional food sales at a lower standard than that required by the EU. The new set of regulations needs to be reviewed before being issued.

Ministry of Foreign Affairs and External Trade (MFAET) is responsible for trade negotiations – WTO, EU-ACP, Pacific Agreement on Closer Economic Relations (PACER), and the Pacific Island Countries Trade Agreement (PICTA). They are also responsible for metrology and carry out inspections for compliance to various regulations e.g. expiry dates on tinned food and calibration of scales and liquid goods dispensers. The Solomon Islands are full members of the IPPC and Codex and are a founder member of the WTO.

There are no Bureau of Standards facilities currently operating in Solomon Islands. The responsible institution for enforcement is the Ministry of Foreign Affairs and External Trade (MFAET). Metrology equipment is currently stored in a container at the Ministry pending reconstruction of a laboratory.

There is no market research within the DAL but there is a corps of information and services on production among the senior staff within the Division. At the moment this function is carried out by the Crops Division, MOAF. Currently awareness and information on quarantine requirements of export markets is the responsibility of the Quarantine Division of DAL. These sections need to be strengthening in terms of human resources and information, communication and technology (ICT) systems.

The Quarantine Division is the designated National Plant Protection Organization (NPPO) in Solomon Islands. The designated SPS National Enquiry Point for Solomon Islands is Irene Nanau, Principal Quarantine Officer, Quarantine Division of DAL. This department is responsible for surveillance, quarantine, inspection and issuing of the Phytosanitary Certificates. It is divided into two sub sections. These are the Plant Protection Section with three staff members, and the Operations Section, with ten staff members who monitor the movement of plants, plant material as well as livestock through designated ports of entry. Operations are focused on three localities: Honiara port and airport, Tomotu (in the Santa Cruz Islands) which monitors trade with Vanuatu, and in the Shortland Island archipelago which monitors trade with PNG, particularly to the autonomous region of Bougainville. Besides the activities at the designated ports of entry the Quarantine Division is responsible for awareness campaigns, monitoring compliance, the Pest Risk Analysis (PRA) process and surveillance. None of these activities is carried out due to an extreme lack of funds, equipment and personnel.

The lack of capacity within the Quarantine Division to carry out effective monitoring of pests anywhere in the Solomon Islands is important as in, for instance, the previously unknown (and possibly recently introduced) pest, diamondback moth, which was responsible for the failure of a watercress project in the Livestock Development Area in Guadalcanal. This was all the more tragic as the project was a community initiative developed without any outside help and the response to the introduction of the pest was completely inappropriate and conventional[55]. In other areas of the Pacific and Africa the introduction of imported predators and parasites by the respective departments of agriculture has naturally controlled diamondback moth without recourse to pesticides.

DAL has extension and training, agronomy and crop protection functions including crop chemical registration and the running of field experimental stations. The Research Division research farm based at Dodo Creek has been destroyed and with the displacement of research staff, field experimental stations (FES) in the provinces have become non-functional. Nothing remains at the sites with the possible exception of the tree crop and multipurpose tree research collections, mostly planted in the 1980s. There has been no maintenance since 2000, but the plant stocks, if they remain, are a vital resource for future tree and fruit crop development. Priorities identified by DAL in terms of export crop development are research into improved cultivars of coconut, oil palm, cocoa, vanilla, as well as the development of kava, nuts, such as ngali nut (*Canarium* spp) and cutnut (*Barringtonia* spp). Parallel with this would be the development of nurseries for the dissemination of the improved cultivars.

It was not possible to meet with the Department of Fisheries and Marine Resources (DFMR). It is the understanding of the consultant that the main role of the department is in the granting of fishing permits and monitoring fishing within Solomon Islands waters. Income from permits amounts to some US$3.17 million (or SI$ 22.2 million) annually. There is a small unit within the Department that organizes the collection of seaweed by coastal communities for export to France.

CEMA is the quasi-government statutory agency that regulates and controls exports of all coconut products, cocoa, coffee, spices and palm oil. Coffee is not currently exported and from discussions it appears that the in-house quality control procedures employed by the coconut and palm oil exporters are more than adequate. Most input is provided to the cocoa and copra exporters where mould and aflatoxins have been a problem on occasion. After grading and bagging by the buyers the consignments are then inspected and certified by CEMA before being containerized and shipped. The main problems with export rejections in Singapore have been mouldiness, insect infestations and incorrect moisture percentage. CEMA have given feedback to growers and packers on quality control reports from the factory. The Australian broker visits Solomon Islands twice a year and once flew a group of 14 local buyers to Singapore to visit the factory. CEMA, with EU funding, organizes annual week long rural training programmes for 10 selected growers. There have been no requests for any kind of certification from either the Australian brokers or the factory other than the normal commercial documentation and the CEMA inspection certificate. According to the Quarantine Division fumigation with phostoxin is required before shipment.

[55] Jansrm, T. 'Growing Water Cress for Urban Markets', Kastom Garden Association, Solomon Islands. *Case Studies on Commercialization of Small Farmers*, FAO Pacific Farm Management and Marketing Series #5

**Table 18. Key institutions in Solomon Islands agricultural and fish export sectors**

| *Organizations* | *Key actors* | *Activities* |
|---|---|---|
| **Government and quasi-government Institutions** | | |
| Ministry of Health and Medical Services | Department of Environmental Health | Pure Food Act, 1996 and Solomon Islands Competent Authority, compliance of fish and fisheries products with EU standards, |
| | Public Health Laboratory currently part of Department of Environmental Health | Currently being set up by a number of donors including AusAID and EU to enable Solomon Islands to achieve 'List 1' status for fish exports |
| | Commodity Export and Marketing Authority | Dealing with coconut, copra, cocoa |
| Department of Agriculture and Livestock | Quarantine Section | Inspection and phytosanitary certificates, training, development of regulations, border control, import permits and phytosanitary certificates |
| Ministry of Health and Medical Services, Department of Environmental Health | Codex and HACCP contact point (Judith Reynolds) | Pure Food Act 1996 |
| Ministry of Foreign Affairs and External Trade | Consumer Affairs Division | Metrology, standards and consumer welfare |
| Department of Agriculture and Livestock | Research Unit | Agro food safety, pesticide registration |
| Department of Fisheries and Marine Resources | Unknown | Unknown |
| Department of National Planning and Aid Co-ordination | Unknown | Facilitate donors and Government for Agricultural and Rural Development Strategy |
| CEMA | The Commodity Export Marketing Authority | A regulatory body. Other primary roles now include quality assurance, facilitating market intelligence and issuing export licenses. |
| **International Institutions** | | |
| FAO | | Policy and training support |
| European Union | | Japanese Aid, water supply |
| **Private sector institutions** | | |
| Fish, Fish Products, Seafood | Soltai Processing | Tuna canning Industry and exporters |
| | National Fisheries Development Limited | Fishing industry and supplier to Soltai |
| | Solomon Islands Seafood Ltd | Retailers and wholesalers dealing with crayfish producers |
| | M.S.L. Import and Export Company | Deal with shark fin, Bêche-de-Mer (now banned), trochus shell and seafood. |
| | Solomon Seaweed | Export to France |
| Coconuts and coconut by products | Kokonut Pacific, Solomon Islands | Virgin Coconut oil |

| | | |
|---|---|---|
| | Solomon Tropical Products | Coconut oil, soaps, pressed copra, etc. |
| | Gold Star Trading | Coconut oil, fish exports |
| Palm oil | Guadalcanal Palm Plantation Oil Ltd | Used to contribute 45 per cent to GDP. Was closed but has just reopened |
| Dried cocoa beans | Active Enterprises | Cocoa bean buyer and exporter |
| | Pacific Melanesia Trading Company Ltd | Cocoa bean buyer and exporter |
| | Purple Investment | Cocoa bean buyer and exporter |

## 2.2 Analytical services

There are very few laboratories in the Solomon Islands. The only one of significance that is accredited for EU fish exports is the one operated by Soltai Processing Limited at its factory in Munda. They carry out a range of accredited tests but not for histamine or mercury, these being the responsibility of the European importer. Japanese Aid has been investing in water related projects and there was a belief in some quarters that this included potability testing in the Honiara district. AusAID and the EU are busy with a major proposal, currently at the tender stage, to construct and equip a laboratory to be part of the Ministry of Health, possibly run by the Department of Environmental Health as the Competent Authority for fish exports. The purpose of the laboratory will be the dual one of achieving 'List 1' status for tuna exports to the EU and general testing of food and water borne diseases.

**Institute of Applied Sciences, USP, Suva, Fiji**
The Institute of Applied Sciences is the consulting arm of the School of Pure and Applied Sciences at the University of the South Pacific. Over 150 types of test are available for water, food, food microbiology, and soils. The University of the South Pacific is a regional university shared between Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga and Vanuatu. The food unit, directed by Professor Bill Aalbersberg, has four full time staff and is possibly to become the designated regional resource centre for food testing (see Appendix 7). There appears to a degree of unhappiness in a number of places with use of the USP facilities mainly due to the infrequency of flights to Fiji and the costs of shipping.

## 2.3 National legislation

Legislation covering food safety is the Pure Foods Act 1996 together with The Pure Food (Fishery Products) Regulations, 1 February 2006. The Quarantine Act recently revised and passed into law considerable input and assistance from New Zealand Biosecurity needs no further revision. Further strengthening may be planned by AusAID in relation to import procedures for new germplasm. Solomon Islands participate in the regional phytosanitary information system the Pacific Islands Pest List Database (PIPLD) is an important part of the workings of the Quarantine Division giving up to date information on the pest status of the various countries and islands.

## 2.4 Projects

## Australia

Outside of their current commitment to peacekeeping and governance through RAMSI the Australian Government through the Australian Agency for International Development (AusAID) has put together an immense five volume document on which it appears they will base their agricultural aid effort to SI[56].

The overall aim of the project is to alleviate poverty in very rural areas of Solomon Islands. This is via a set of 13 recommended components for improving rural livelihoods and generating broad-based growth in Solomon Islands may be classed as being of high, medium and lower priority. The high-priority components are;

[56] This is a five volume study and an immense source book for the rural agricultural situation in Solomon Islands. The report summary is contained in Bourke R.M., A. McGregor, M.G. Allen, B.R. Evans, et al., 2006.

1a. Investigation of import quarantine needs for Solomon Islands agriculture

1b. Improving food security for rural villagers

2. Enhanced domestically marketed food

3. Increased production of quality copra

4. Increased production of quality cocoa

Of particular importance is the aim to investigate what is needed to re-establish a quarantine service to start germplasm transfer to improve SI) agriculture. The intention is to support a technical mission to visit Honiara and make recommendations on re-establishment of a viable quarantine service so that improved varieties of food and cash crops can be brought into Solomon Islands without introducing exotic pests or diseases.

AusAID and the EU are involved in financing the construction and equipment of a Public Health Laboratory at the Ministry of Health.

## Other aid projects

The Solomon Islands Government has a Department of National Planning and Aid Coordination (DNPAC). This department is involved with ensuring that aid is co-ordinated with Solomon Islands Government policy. This policy is very much focussed in poverty alleviation, education and public health. In terms of public health the priorities are in communicable diseases rather than food borne illnesses. At present there are a number of aid projects in Solomon Islands that are co-ordinated through the DNPAC. These are;

- AusAID rural development project which is covered in some detail above and which has a phytosanitary component.
- New Zealand projects are aimed at education and health. The phytosanitary component was complete in 2002
- Japanese aid which is small and focussed on physical structures (bridges, schools, malaria research centre, and water reticulation)
- E.U. aid projects in the area of agriculture and education for example CEMA training courses for cocoa farmers.

Food safety and market access through the overcoming of TBT is not perceived as a priority area within DNPAC though they are aware that it is an important factor in the DFAT.

There was a New Zealand supported phytosanitary support project between 1999 and 2002. This involved an awareness and publicity campaign, the establishment of an incinerator and uniforms for AQS staff among other inputs. There is little sign that much impetus from this project remains. Recently the chief NPPO officer completed a post graduate diploma at the Natural Resources Board (based at Greenwich University) under Professor Rob Black with a scholarship provided by the UK Government

The FAO Sub-Regional Office for the Pacific is based in Apia, in Samoa but is more involved in regional capacity building in terms of food safety and security than in national projects. Literature and training on cash crop growing and farmer training is available for the region which includes case studies from the Solomon Islands[57].

The WHO provides training and laboratory consumables for (MHMS). WHO and FAO are to review the General Regulations for Local Food Manufacturing and Sales.

[57] FAO, 'Helping Small Farmers Think About Better Growing and Marketing: A Reference Manual', FAO Pacific Farm Management and Marketing # 3, and Case Studies on Commercialization of Small Farmers # 5.

## 2.5 Macro costs of compliance

In one sense Solomon Islands is fortunate in already having on paper good food safety and phytosanitary legislation. The current weaknesses are in implementation and enforcement. To improve its food safety control system, the regulatory institutions need to develop appropriate standards and legislation, develop systems for assessing conformity to standards, train its staff and promote standards, improve information flows, develop effective mechanisms for the control of imported and exported produce and improve participation in international standards setting.

The breakdown of the key institutions analysed and the type of inputs necessary to meet them are presented in Table 19. The cost estimates were collected during the interviews with key stakeholders in Solomon Islands (see Appendix 12). A summary of the estimated costs of compliance is presented below.

**Table 19. Summary of macro costs of compliance - Solomon Islands**

| *Organization* | *Objective* | *Costs (USD)* |
|---|---|---|
| Department of Environmental Health | Inspectorate | 80,000 |
| | Public Health Laboratory | 2,000,000 plus |
| | Sub-Total | 2,080,000 |
| Department of Agriculture and Livestock, Quarantine Division | IRA for new germplasm of key crops | 125,000 |
| | IRA for beneficial insect imports | 50,000 |
| | Upgrade of import inspections | 150,000 |
| | In country monitoring | 100,000 |
| | Strengthen Information, Surveillance Systems | 10,000 |
| | Promote Implementation of Quality Standards | 25,000 |
| | Improve Participation in PIPLD | 25,000 |
| | Recruitment | 50,000 |
| | Sub-Total | 535,000 |
| Ministry of Foreign Affairs and External Trade; Consumer Affairs Division | Metrology, standards and consumer welfare | 30,000 |
| **Total Costs** | | **3,590,000** |

Many of these activities are proposed as parts of other projects or are theoretically already carried out as part of government. However Solomon Islands Government has had a severe cutback in its revenue collection due to the economic downturn of 1995 – 2006. The necessary squeeze on government expenditure has curtailed ability of civil servants to project their activities beyond a small area due to a lack of transport, telephones or access to information. Additional burdens such as new EU market requirements are completely beyond their financial ability.

### 2.6.1 Key players

There are two companies that are active in the domestic fishing industry in the Solomon Islands. The cannery and fishing feet of Soltai Processing Ltd. is based at Munda in New Georgia. The company fully complies with FDA and EU requirements for tinned and frozen loin exports. Compliance and inspection costs are met by the company itself with no assistance from either the Solomon Islands Government or international aid. NFDL, based in Honiara, supplies fish to the cannery as well as frozen loins for export. There are smaller companies operating that export seaweed and crayfish.

GPPOL which is 80 per cent owned by New Britain Palm (PNG) Oil Company and 20 per cent by the local community restarted palm oil production operations in the past few months. The company is ISO 14000 and ISO 9000 certified though these requirements are not requested by the market (primarily Italian refiners). Simple

testing is carried out at GGOL (free fatty acids, water content, clarity) and samples are sent ahead to the customer for more sophisticated tests. Certification is carried out by the SGS office in Australia. GPPOL regard the standards and costs of certification as an integral part of triple bottom line accounting and are not particularly concerned about the cost.

There are no certification companies in the region and all inspections are carried out by Australian companies. In all cases (for the fisheries and agriculture) HACCP, Fair Trade and Organic certification costs are borne by the individual companies.

The most significant export development of internationally certified agricultural products is by Kokonut Pacific Solomon Islands which has Organic and 'Fair Trade' certification that has been arranged and paid for by the company without outside help. There is no demand for GAP certification of growers in the target markets of Australia, New Zealand and the USA. Cocoa beans are not getting any form of certification and none is needed in the target markets in South-east Asia, particularly Malaysia and Singapore.

### 2.6.2 Micro costs of compliance

Cost of compliance with food standards for private producers was given to the consultant as gross numbers without any breakdown of the components. For the certification of DME coconut oil (KPSI) and organic copra waste (Solomon Tropical Products) total estimated costs were very similar and there is some confidence about the total sums involved. The broken down cost is therefore an estimate on the part of the consultant using break downs based on a BRC model of factory and procurement compliance. Additionally, given the comprehensiveness of this protocol, it is a good model for the analysis of the costs of compliance with other protocols as well.

A summary of the costs of compliance is presented below (Table 20). These costs are based on the cost of clerical input (the main input) in Solomon Islands.

**Table 20. Micro Costs of Coconut oil Organic Certification and Compliance – Solomon Islands (in US$)**

| *EU requirements* | *Establishment costs* | | *Ongoing costs (SI$)* | |
|---|---|---|---|---|
| | SI$ | US$ | SI$ | US$ |
| 1. Training | 10,000 | 1,429 | 10,000 | 1,429 |
| 2. Record Keeping And Self-Inspection | 10,000 | 1,429 | 10,000 | 1,429 |
| 3. Site Management | 0 | 0 | 0 | 0 |
| 4. Risk Assessments | 1,500 | 214 | 1,500 | 214 |
| 5. Technical Services | 4,000 | 571 | 2,000 | 286 |
| 6. Laboratory Analysis | 5,000 | 714 | 4,000 | 571 |
| 7. Farm inspection and record keeping | 3,000 | 429 | 3,000 | 429 |
| 13. Waste and Pollution Management | 2,000 | 286 | 2,000 | 286 |
| 14. Worker Health, Safety And Welfare | 5,000 | 714 | 5,000 | 714 |
| 15. Environmental Issues | 1,000 | 143 | 1,000 | 143 |
| 16. Certification Costs | 40,000 | 5,714 | 40,000 | 5,714 |
| **Total Costs** | **81,500** | **11,643** | **78,500** | **11,214** |

Costs of compliance vary with the different export crops.

**Palm Oil Certification** (ISO 14000 and ISO 9000)
No figures were given for this by GPPOL. The standards appear to be an integral part of their business philosophy and could not be easily separated out.

**Coconut oil (DME virgin) and organic copra meal**
The costs of organic and 'Fair Trade certification' are estimated to be between five and six per cent of the 'beach' price of DME oil.[58] KPSI was not able to give a detailed breakdown of the costs of initial certification but estimated these as totalling SI$ 80,000. The bulk of the costs, i.e. about half, were in the flying out of the auditor and the daily consultancy rate. The consultant has provided an estimated breakdown of these costs in Table 20 based on similar enterprises.

Similarly with Solomon Tropical Products the calculated total figure for overall certification was very similar. In discussions with the general managers of both enterprises this appeared to be because of the same basic model i.e. that Solomon Islands coconut production was by its nature organic but that the required training and paperwork was virtually identical.

**Tuna fishing and canning**
In discussions with the Financial Advisor to Soltai Processing it appeared that the ongoing costs of EU technical compliance were so interwoven into the current business model that they could not give exact figures. They have had to build and staff a Quality Control laboratory and their importing agent carries out mercury and histamine tests. Both NFDL and Soltai have had to upgrade vessels in terms of structure and procedures to meet EU requirements. Costs of implementing HACCP, installing temperature recorders and improved toilets in the vessels as well as a quality control specialist have been fairly modest at US$8,570 to $11,400 (or SI$ 60,000 to $80,000) per unit. However one vessel required some very expensive refitting to remove wooden lockers at a cost of US$112,800. More serious is the need to replace wooden decking and eliminate water pooling areas (not done yet) the cost of which is estimated will be in the region of US$ 38,000 per vessel.

Soltai also carry out internal quality control checks backing up the Solomon Islands Competent Authority inspectorate at DEH. At a rough estimate these amount to US$57,000 to $71,000 per annum in total or between six and eight per cent of f.o.b. value. More serious is the EU mandated need for significant upgrading of plant infrastructure, particularly of the refrigeration plant, which requires an investment of US$4.5 million. This money is required for upgrading the refrigeration plant, the building of a fish meal factory and for proper disposal of waste, mainly the offal (see Appendix 8).

The essential part of the required investment has been secured via a commercial loan from the ANZ bank in part organized by the EU funded project, *Strengthening the Sanitary Production of Fishery Products* (SSPFP). This EU project is specifically aimed at getting Solomon Islands to achieve 'List 1' status and has been instrumental in organizing the engineering and environmental surveys in order to draw up the documents needed to apply for the loan. The loan provides the minimum needed investment for the current period. The summary of the total required expenditure is given in Table 21. A detailed explanation of the total required investment is provided by Soltai (see Appendix 8).

**Table 21. Estimated compliance costs - infrastructure - to Soltai to meet European Union requirements**

| *Summary of compliance costs* | *Euro € ('000)* |
|---|---|
| 1. Replacement of cold storage facility | 3,300 |
| 2. Replacement of export wharf | 5,000 |
| 3. Upgrading of cannery refrigeration | 1,200 |
| 4. Upgrading of laboratory | 200 |
| 5. Procurement of more baskets or bins | 620 |
| 6. Replacement of fish meal plant | 600 |
| 7. Replacement waste water treatment plant | 1,500 |
| 8. Cost of inspection | 1 |
| 9. Regular pest control treatment on top of the usual practice | 5 |
| 10. Cost of changing five vessel decks from wood | 100 |
| **Total** | **12,526** |

[58] There are no Fair Trade criteria established for coconuts so strictly speaking nobody trading in any coconut product can claim internationally recognized Fair Trade (FT) status for this commodity. The Fair Trade Association of Australia and New Zealand (FTAANZ) is closely linked to the international FT organization and is working with them to establish suitable criteria for coconuts.

## 2.7 Impact of European Union and other standards on Solomon Islands trade

It is difficult to ascertain the direct impact of trading standards on Solomon Islands trade patterns. Despite the relative poverty of the Solomon Islands it has been successful in accessing the EU market with tinned and frozen tuna. This appears to be a significant cost to the government in subsidies and tax holidays to Soltai Processing and for the continued viability of this enterprise these seem set to continue at the expense of other, probably more pressing, national objectives. Excluding capital expenditure, cost of compliance with EU and other (e.g. organic) standards is probably running at about 7 – 10 per cent of f.o.b. values. However it must be pointed out that these costs are usually borne by exporters in other countries though specifically in the case of Samoa these are paid for by the New Zealand Government.

There are impassioned pleas in many areas for a reduction in the import requirements demanded by AQUIS act as impediments to market access given that Australia represents the most significant regional market for PIC exports. However, these institutionalized difficulties would seem to be a *prima facie* case to raise with WTO under its ASPM provisions, on the grounds of Article 3, (Harmonization), Article 4, (Equivalence), Article 5 (Assessment of Risk and Determination of Appropriate Level of Sanitary and Phytosanitary Protection) and Article 7 (Transparency).[59]

However raising it as a *prima facie* case with WTO under the ASPM provisions may be severely weakened for the other PICs except for Fiji which stands to benefit - improved market access of its fresh agri-food products - from such undertakings given their domestic capacity to meet these requirements and, if they engaged the AQUIS through their Market Access Committee.

In summary, current trade patterns of Solomon Islands appear to be more a function of natural market forces and distortions due to the internal dynamics of the country. Like State or parastatal institutions elsewhere in commodity-dependent developing countries, CEMA (in its original form) has been ineffective in fulfilling its stated objectives including regulating the industries it represents as providing stable prices to growers. The internal unrest in Solomon Islands has made the normal functions of private companies more difficult in an already competitive and uncertain environment given Solomon Islands position at the end of the logistical line.

It would appear that government intervention in the fisheries sector through Soltai had diverted scarce resources away from essential government social and development objectives such as provision of public goods such as infrastructure (roads and bridges), telecommunications, education, hospitals and aid posts. One may also query if the current Solomon Islands Government policy favours selling tuna to export markets, particularly the EU, at subsidized prices and constitutes a market distortion in itself.

[59] McGregor, A., 1999. 'Linking market development to farming systems in the Pacific Islands', SAPA Publication, FAO Sub-Regional Office for the Pacific, Apia, Samoa.

# 3. CONCLUSIONS

## 3.1 National consultation seminar

At the conclusion of the consultants visit a mini seminar was held at the CEMA boardroom in Honiara on Wednesday 26th of July to review the results of the consultation process. Present were representatives from the government: Foreign Affairs and Trade, Agriculture and Health, the private sector and CEMA. The discussions took the form of a round table workshop.

The following conclusions were reached:

At public level:

- There was already significant input from a variety of donors on regarding SPS requirements among public actors
- While there was lack of technical expertise and equipment of the control services, and plant protection these had been identified by a number of donors as needing help and many of these plans were at an advanced stage.

At private level:

- The key constraints to the private sector are the costs of compliance in order to take advantage of already identified and potential future markets.
- Lack of capacity of the local companies to achieve certification locally needing commercial input from outside SI
- Lack of local certification body which added to costs
- The fishing industry was a special case and considerable inputs aimed at promoting Solomon Islands into 'List 1' were already underway from a number of donor initiatives.

## 3.2 Regulation and legislation

While there was a need to review legislation this was already under way via other donor agencies and in any case the issues would be minor as most regulations had been issued relatively recently.

National certification capability was seen as an aspiration but impractical given the projected number of inspections and certificates issued annually. However given that most of Solomon Islands was *de facto* organic the presence of a local part time auditor and auditing body that could be available on a regular basis to help with achieving a wider ranging certification e.g. of entire regions was considered as a possibility.

### 3.3 Reinforcement of public sector capacities

Significant investment is already underway to upgrade control and analytical equipment at the Public Health Laboratory, and plans were in preparation for the Quarantine Division for germplasm importation. However a need for a system of surveillance and alerts as well as looking at biological control agents for the control of new exotic pests is necessary.

Possible interventions for local inspection and certification were discussed including;

- Look at twinning CEMA with a commercial certification body in Australia
- Train producers and exporters
- Train auditors
- Provide transport for various agents trainers and auditors

## 3.4 Reinforcement of private sector capacity to implement quality standards

The following priorities were agreed;

- Establish a professional organization for value added (i.e. 'market' certified value adding such as organic and Fair Trade) to interact with government and NGOs.
- Fund the training of farmers on elementary hygiene and the essentials of good agricultural practice
- Acquire material and equipment necessary for implementation of quality and safety systems
- Establish a local agency subcontracted to an accredited certification company for affordable certification
- Create a fund supervised by a forum comprised of both public and private actors whereby funds could be allocated according to certain criteria.

It was not possible to review issues relating to the palm oil or fishing industries at this meeting so the workshop focused on agricultural issues. The palm oil exporter (GPPOL) does not require any SPS input. There are significant efforts by various donors for the fish industry involving large sums of money.

Specific proposals were made in the workshop with the specific aim at applying trade related technical aid to where it would do most good. This is at the micro i.e. enterprise level, in the form of a fund. It was proposed to set this up under the joint trusteeship of government, the export sector (agriculture and fisheries) in the form of an industry organization (e.g. CEMA) and an NGO agreed on by the other two parties.

Applications are then invited from established businesses and other entities for funds where;

- The business is a going concern in the sense that it already in operation has a clear supply chain, market and record as a corporate citizen.
- There is a clear market need for spending on compliance (upgrading plant, machinery, certification, quality control equipment, training, etc.)
- Non statutory requirements which will enhance social and economic objectives through better prices should be considered (e.g. 'Fair Trade' certification).
- Where it is agreed that enhancing a government or other public function (such as inspection services or a targeted hygiene awareness program) will add value to the exporter.

In large part because of size and remoteness from larger world markets there has been a steady long term overall decline in agricultural and fish exports despite significant resources being devoted to this sector. Regionally countries of the South Pacific will have to continue to rely for HACCP and other certification of exporters and export consignments from New Zealand and Australia. Care must be taken that such certification is suitably accredited for other target markets such as the USA and EU but this seems reasonable to expect will be the case.

## 3.5 Further action

A proposal for taking forward some of the issues discussed at the country workshop were agreed. A group of participants have formed a working group and will commission a document to be presented at the Regional South Pacific Workshop in Vanuatu. This document will try to map a way forward with regard to Solomon Islands interaction with the WTO in regard to STDF funding for improved market access for value added agricultural commodities.

# VANUATU

## 1. AGRICULTURAL COMMODITIES TRADE

### 1.1 Introduction

This analysis of the food safety systems of Vanuatu was conducted as a series including Samoa and the Solomon Islands. In all instances the consultant has borne in mind that the study is only part of an overarching framework, this one within agricultural and food commodities, of reviews leading to TRTA within the context of the Integrated Framework. Therefore a more in depth analysis has been made of trade patterns in Vanuatu because the STDF application for Vanuatu is a specific outcome this report. The results of the analysis provide a clear justification for the detailed proposals made in the STDF application.

In addition, the consultant hopes that the specific analysis contained in this report will be used as a building block to the development of more refined projects within the exported commodities sector as well as guide future missions on sectors where reduction of transaction cost and reduction of poverty can best be achieved within the Vanuatu agrifood sector.

### 1.2 Structure of Vanuatu report

This section of the report comprises three chapters: a brief review of export commodity trade patterns in Vanuatu (Section 9); further analysed of these patterns in terms of the national framework of food safety standards (Section 10); and Section 11 concludes and makes Vanuatu-specific recommendations using the 'needs analysis' test adopted by the World Bank.[60]

### 1.3 Introduction and geography [61]

Vanuatu is a 'Y' shaped archipelago that comprises about 80 islands. They are located just over 2,000 kilometers northeast of Sydney and nearly 6000 kilometers southwest of Honolulu. Fiji lies to the east, New Caledonia to the south, and the Solomon Islands to the northwest, all within the area of the South Pacific called Melanesia.

The two largest islands, Espiritu Santo (or Santo) and Malekula, account for nearly one-half of the total land area. They are volcanic, with sharp mountain peaks, plateaus, and lowlands. The larger islands of the remaining half also are volcanic but are overlaid with limestone formations; the smaller ones are coral and limestone. Volcanic activity is common with an ever-present danger of a major eruption, the last of which occurred in 1945. Rainfall averages about 2,360 mm per year but can be as high as 4,000 mm in the northern islands.

### 1.4 Economy – general overview

Vanuatu's real GDP recovered in 2003 after two successive years of contraction. Growth was driven by improvements in the forestry and beef industries, as well as the services sector. Forecasted growth in 2005 was 2.8 per cent. Partly due to a reduction in recurrent expenditures, a small budget surplus was recorded for the first three quarters of 2004, an improvement from a deficit of two per cent of GDP in 2003. Vanuatu maintains tight

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[60] World Bank, 2005. 'Food safety and agricultural health standards: challenges and opportunities for developing country exports', Poverty Reduction and Economic Management Trade Unit and Agriculture and Rural Development Department - Report No. 31207, Washington D.C.

[61] Much of the material used in this chapter is sourced from the 'Country Chapter on Vanuatu', published by the World Bank. Data has been updated by author's findings.

controls on its public borrowings and public debt stood at just below the Government's debt ceiling of 40 per cent of GDP in 2004. Inflation remained below three per cent in 2004. The discipline of the central bank and Finance Ministry in controlling the inflation rate and fiscal deficits has contributed to Vanuatu's macroeconomic improvement.

The Vanuatu economy is narrowly-based. Services dominate the economy, contributing 72 per cent of GDP, with wholesale and retail trade contributing some 40 per cent. The economy also relies heavily on agriculture (18 per cent of GDP), and tourism (16.6 per cent).[62] The offshore financial centre claims to contribute 7.4 per cent, although this figure is likely to also include local banking services. Over 80 per cent of the population reside in rural areas whose primary activity is agriculture for their livelihoods as incomes. However bulk of the economic activity and services are concentrated in the two urban areas, Port Vila and Luganville which contribute more than 80 per cent of GDP. In contrast, manufacturing contributes only three per cent to GDP, and fishing 0.4 per cent.

Agriculture and tourism are the principal productive sectors contributing to Vanuatu's economy. Vanuatu's economy is based on small-scale agriculture, which provides a living for 65 per cent of the population. Other activities are fishing, offshore financial services, and tourism. One third of tax revenues come from import duties with VAT, introduced in 1998, contributing around half of recurrent tax revenues. Economic development is hindered by dependence on relatively few commodity exports, vulnerability to natural disasters, and long distances from main markets and between constituent islands. GDP growth rose less than three per cent on average in the 1990s. In mid-2002 efforts were increased to boost tourism with agriculture, especially livestock farming as a secondary priority. About 70 per cent of tourists come from Australia and New Zealand. In agriculture main activities centre around coconut, cattle, cocoa, and timber production, as well as with traditional food production for subsistence and local markets. Vanuatu's population primarily relies on the subsistence and informal sector.

Nearly all domestic exports are primary goods, the main one being copra. In 2004, Vanuatu's exports grew by 28.2 per cent to 4.2 billion vatu although they still only contribute around 10 per cent of GDP. Over 80 per cent of Vanuatu's locally-produced exports are agriculture-based, led by coconut oil (31.1 per cent), copra (13.5 per cent), kava (13.4 per cent), beef (8.7 per cent) and timber (7.5 per cent). The transition to cash cropping from subsistence farming is still at an early stage although it has been growing strongly recently.

A resurgence in established copra production, an increase in coconut oil prices, a recovery in kava exports following the lifting of some bans and ongoing development in the root crop and beef sectors have all provided a basis for strong growth. In 2004, the value of coconut oil exports increased by 169 per cent, kava 93 per cent and copra 58 per cent. Cocoa exports declined from seven per cent of total exports in 2003 to three per cent of total exports in 2004, reflecting the damage to tree crops caused by Cyclone Ivy in early 2004. The shift from copra to coconut oil during 2002-2005 has since been partially been reversed as the main coconut oil plant closing down in 2006 partly attributed to government interventions in the sector.

The overall value of visible exports declined by nearly 10 per cent in the period 2004 to 2005 and this poor performance has been attributed, in some quarters, in part to a decision to revive the Vanuatu Commodity Marketing Board (VCMB) which now controls the marketing of cocoa, copra and copra products, and kava. Following a trade dispute with Fiji over an unrelated product, Fiji retaliated with an import ban on kava from Vanuatu. Only substantially higher kava prices were able to sustain growth in the value of exports. However other commodities did not do well and it is as well to remember that, generally speaking, commodity marketing boards do not have a good track record on delivery.[63]

Tourism is an expanding industry in Vanuatu (tourist arrivals increased by 25 per cent in 2003 from 1997 levels). Tourism is a main foreign exchange earner and has been recognized by the government as a key sector. It employs an estimated 1,200 people though some sources believe the number employed is closer to 10,000. Continuing growth in this sector is crucial in providing employment opportunities. Increasing investment in new boutique-style hotels, refurbishment of larger resorts, stronger interest in locally-owned bungalows and industry interest in the backpacker market also point to further growth in this industry. Other developments are aimed at increasing flights, through extending Vanuatu's recently adopted Open Skies policy and agreements such as the Pacific Islands Air Services Agreement.

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[62] Data for year 2004.

[63] For a review of the history of Government intervention in agricultural marketing in Fiji and Vanuatu see SAPA Publication 1999/2: Linking market development to farming systems in the Pacific Islands, by Andrew McGregor, ISBN 92-5-104389-2

In May 2004 Vanuatu was one of 16 countries, and the only PIC, selected by the U.S. Millennium Challenge Corporation as eligible to apply for assistance through the Millennium Challenge Account (MCA). It is expected that assistance under the MCA would be closely linked to proposals that support economic growth, policy reform, partnerships, and widespread ownership. In the second half of 2005 an MCA compact was signed between Vanuatu Government and the USA worth US$65m for infrastructure development. List of projects include Efate ring road, Port Vila wharf, airstrips and jetties in outer islands.

Vanuatu's current relatively healthy economic environment presents an ideal opportunity for the implementation of policies to reduce medium-term risks and to promote sustainable economic growth. In view of high development needs, population growth of around 2.4 per cent, and a mounting wage bill, strategic measures need to be considered. These include re-directing spending toward productive infrastructure (including in the outer islands) while maintaining vital social spending, and reducing the size of the public sector. Such measures will be important to prevent the likelihood of deterioration in the fiscal position, a widening in current account deficits and erosion of foreign reserves.

For both movement of goods and people shipping is a problem. This, however, also offers an opportunity for development of shipping industry. Foreign investors should be invited into this sector. The problem of insufficient docking facilities at Port Vila for deep sea vessels is an issue as only one ship can dock at any one time. In 2006 the sector was effectively "opened" for passengers with the arrival of two high-speed "tourist carrying" operators. Vanuatu should consider opening these sectors (transport, port services, and utilities) in the context of trade in services agreements currently being negotiated

Overall private sector investment remains subdued, although real estate development has seen a boom since mid 2004. Political stability and long-standing commitments by past Vanuatu Governments to public sector and economic reform will need to continue if investor confidence and growth are to occur. In light of Vanuatu's high costs (in some sectors) relative to its regional comparators, reform to lower the cost structure for business activity, improvements in competition and oversight, and strengthening of the financial sector will be important to fuel private sector activity.

## 1.5 Trading alliances

Vanuatu joined the Commonwealth and the Pacific Islands Forum at the time of its independence in 1980. Vanuatu is also a member of the Francophone Community, the United Nations and several specialized agencies including the International Monetary Fund (IMF), World Bank, Asian Development Bank (ADB) and the African Caribbean Pacific (ACP) grouping enjoying special relations with the European Union.

Vanuatu pulled out of the accession process to join the WTO just prior to the Doha Ministerial Meeting in November 2001, citing revenue concerns and the GATS schedule of services commitments, particularly in the areas of education, health services, TV and radio, and the small retail sector. Negotiations are currently in the process of being restarted, following Ministerial approval.

The main requirement would be that upon accession to the WTO, Vanuatu would bind its tariffs as agreed in its schedule of concessions. The amount of time to implement other WTO rules (SPS Agreement, TRIPS) is an area of disagreement with members of the accession working party – Vanuatu has been asked to forgo some of the rights available to existing LDC members in these areas. As far as WTO accession is concerned bound rates (average 42 per cent) are above applied duty rates (average 17 per cent). Tax reform is not a central issue. Effectively the economy would be subjected to a more competitive global trading environment which should create better development opportunities in the longer term.[64]

Vanuatu is part of the Melanesian Spearhead Group (MSG) (others are PNG, Solomon Islands and Fiji) which allows duty free access for beef, canned tuna and tea as well as other items from any MSG country. This agreement has seen greater ties being established between these neighbor Melanesian economies and will culminate via PICTA in a free trade area across 14 Pacific States in 2021. Vanuatu receives moderate levels of external assistance (aid per capita averaging US$179 over 1999-2002).

[64] Country and Regional Information - Department of Foreign Affairs and Trade, Australian Government, Department of Foreign Affairs and Trade

## 1.6 Sectoral contributions to exports potentially affected by SPS and TBT issues

### 1.6.1 Introduction

Nearly all visible domestic exports are primary goods, with coconut oil, kava and cocoa all overtaking copra since 2003 (Table 23). Those commodity exports potentially most affected by SPS issues are summarized in Tables 22 (tonnes), Table 23 (in US$ millions) and Table 24 (value in US$ per kg). In gross terms the highly optimistic aim of policymakers in Vanuatu was to export 60,000 tonnes of selected commercial crops in 2005. Expectations were not nearly met. The main exports are reviewed as well as some smaller fledgling export industries. EU trade is reviewed in the context of overall exports and performance for 2004 and 2005 is summarized in Table 25.

**Table 24. Value of principal domestic exports by year (f.o.b. US$ per kg)**

| Principal Exports | Copra | Coconut oil | Veal | Cocoa | Shells | Cow hides | Kava | Coffee | Vanilla | Coconut meal | Root Crops | Live Cattle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2002 | 0.22 | 0.43 | 2.54 | 1.70 | 24.13 | 1.08 | 3.44 | 0.08 | 92.09 | 0.65 | 1.02 | - |
| 2003 | 0.24 | 0.44 | 2.64 | 1.76 | 17.44 | 1.11 | 4.17 | - | 34.82 | 1.01 | 1.47 | - |
| 2004 | 0.26 | 0.58 | 3.16 | 1.48 | 18.25 | 1.13 | 4.62 | 0.78 | 47.78 | 0.44 | 1.22 | - |
| 2005 | 0.26 | 0.63 | - | 1.30 | - | - | 6.25 | - | 67.42 | - | 1.08 | - |

**Table 22. Principal domestic exports by year (tonnes)**

| Principal Exports | Copra | Coconut oil | Veal | Cocoa | Shells | Cow hides | Kava | Coffee | Vanilla | Coconut meal | Root Crops | Live Cattle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2002 | 7338 | 9856 | 685 | 758 | 19 | 235 | 601 | 81 | 2 | 2253 | 11 | 2123 |
| 2003 | 10620 | 7725 | 976 | 1506 | 23 | 289 | 491 | - | 15 | 3948 | 266 | 2048 |
| 2004 | 15195 | 1711 | 927 | 1011 | 25 | 229 | 828 | - | 14 | 6535 | 393 | 1614 |
| 2005 | 4319 | 10452 | | 1246 | | | 686 | - | 2 | | 324 | 1581 |

Source: National Statistics Office of Vanuatu

**Table 23. FOB Value of principal domestic exports by year (US$ million)**

| Principal Exports | Copra | Coconut oil | Veal | Cocoa | Shells | Cow hides | Kava | Coffee | Vanilla | Coconut meal | Root Crops | Live Cattle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2002 | 1.56 | 4.23 | 1.74 | 1.29 | 0.45 | 0.25 | 2.07 | 0.01 | 0.13 | 0.56 | 0.13 | 0.14 |
| 2003 | 2.53 | 3.43 | 2.58 | 2.66 | 0.40 | 0.32 | 2.05 | - | 0.31 | 0.84 | 0.33 | 0.47 |
| 2004 | 4.01 | 9.22 | 2.57 | 1.44 | 0.27 | 0.25 | 3.96 | - | 0.30 | 1.05 | 0.42 | 0.26 |
| 2005 | 1.13 | 6.59 | 0.00 | 1.63 | 0.00 | 0.00 | 4.29 | - | 0.13 | 0.00 | 0.35 | 0.50 |

**Table 25. European Union imports from Vanuatu (2004 and 2005)**

| | 2004 | 2005 | Tonnes (2005) |
|---|---|---|---|
| | Euro € '000s | | |
| Coconut oil, Palm Kernel oil | 8,287 | 8,119 | 15,562 |
| Copra | 3,552 | 1,128 | 4,222 |
| Cocoa beans | 200 | 430 | 316 |
| Live fish | 11 | 168 | 10 |
| **Total agriculture and fish** | **12,050** | **9,845** | **-18%** |

Source: Eurostat

## 1.6.2 Coconut and coconut by-products

**Copra**
Traditionally copra has been the mainstay export crop for Vanuatu and has been the main source of generating cash income for most ni-Vanuatu people. In 1999 it represented almost half (48 per cent) of the total value of domestic exports. The Government of Vanuatu established the VCMB in 1981 to buy, sell and stabilize prices paid for prescribed commodities i.e. copra, cocoa and kava. Under the ADB-sponsored CRP9, these commodities were de-prescribed providing opportunities for competition and allowing foreign investment in these areas. In recent years there was another shift in policy and VCMB was resurrected in its original format though price stabilization is not in its current remit. The change to a monopoly from free market trading practices has probably introduced less flexibility into production, crushing and exports. In year 2005, exports of copra to the EU declined to less than half their 2004 levels. This was, in part, attributed to the diversion of copra exports into oil production at Luganville (Table 25). However with the closure of the Coconut Oil Products Vanuatu (COPV) it is likely that un-beneficiated copra exports will rise substantially in 2006.

**Coconut by-products**
The down-stream processing of copra into coconut oil (cooking oil) and other related products was an established beneficiation route in Vanuatu but the big Australian-owned company; Coconut Oil Products Vanuatu (COPV), with commercial presence in PNG, the Solomon Islands and Samoa was closed in 2005. Prior to its closure it was capable of producing 36,000 tonnes of coconut oil compared to 3,600 tonnes produced by Vanuatu Coconut Products Ltd (VCPL). VCPL is an enterprise with a coconut oil processing unit owned by VCMB. Coconut meal exports have been increasing in volume terms annually but prices and returns are variable. The main growth market, in terms of exports for this product would appear to for organic beef production but at present Vanuatu has no organically registered copra producers. Sales of coconut oil to the EU were steady at just over Euro €8 million per year.

Virgin coconut oil produced by novel method of pasteurization. It is currently excluded from VCMB sphere of influence. Production is by Vanuatu Virgin Coconut Oil (VVCO). VVCO will start full operations towards the latter half of 2006 with production capacity of the plant set at 500,000 coconuts per day. The initial plan is to export 17 containers per month out from Santo into Australia and USA market for the four end products they produce from coconut product. In addition to the oil they will produce edible flour from the meal, semi-activated charcoal, alcohol, and peat substitute. Product standards will comply with international standards and they are in the process of securing more competitive market prices for pure VCO.

### 1.6.3 Beef

Beef is the second most important export commodity to copra. The quality and taste of Vanuatu veal is considered to be among the best in the world (Government of Vanuatu, 2001, p.4).[65] Cattle production was originally used in the coconut plantations to maintain areas under trees clean. Beef and cow hide exports have been fairly steady over the years though have not reached the level seen in 2000. The problem is one of production as the market for organic beef is far from satisfied. Vanuatu beef is organically-reared, although not all farms are certified as such. Much of the cattle are from small holders. At present hides are exported to as 'salted-blue' to New Zealand. Vanuatu's beef is free of diseases and is of higher quality than even Australia or New Zealand beef. Several issues face the industry including the availability of cattle as abattoirs face difficulty in sourcing enough cattle to meet demand.

Lack of good pasture, low levels of calving and fertility rate, cash flow issues and transportation difficulties are major issues leading to weight loss during whilst in transit to slaughter houses (or abattoirs) located on the major islands, Efate and Espiritu Santos. The reluctance of local banks to lend money to ranchers using stock as collateral has meant that significant amounts of working capital are tied up and has been a major reason for shortages in beef supply. A further problem is that of in-breeding of outer island cattle which needs to be addressed through the importation of semen from pedigree animals with cooperation from VQIS. It is possible that the poor traveling ability of outer island cattle is exacerbated by in-breeding.

VAL, located near Port Vila, supplies the domestic market with veal and exports a proportion of prime cut to New Zealand and Australia. They also produce bone meal which can be used as livestock feed and fertilizer. Santo Meat Packers (SMP) is a Japanese owned and managed company (Nitchiku). With a production throughput of 1000 head of cattle per month, SMP exports prime cut beef to Japan, Kiribati, Solomon Islands, Australia and Fiji. There is no marketing as demand far exceeds supply. Internal training has been carried out with the assistance of the Quarantine Officers. There is no requirement by any importing country or additional certification. The Valele Trust has one of the largest cattle properties in Vanuatu of 2000 hectares of land in Santo. About 200 head of cattle per month is sold by Valele to Santo meat packers.

Mismanagement and changes in national policy resulted in a decline in the national herd toward the year 2000[66]. Although an accurate survey of the beef sector has not recently been made, industry estimates suggest that there are less than 130,000 head, of which five per cent are available for slaughter at any one time.

### 1.6.4 Cocoa industry

Cocoa remains the third largest agricultural export but has now been overtaken by kava with copra moving to fourth. There continue to be deficiencies in husbandry and maintenance. There is no programme of annual re-plantings. After independence the Commonwealth Development Corporation (CDC) developed Methenesel Estates Limited, a large-scale cocoa plantation on approximately 3,000 hectares on the western coast of Malekula. MEL is now owned by the government but is under private sector management, and it produces around half of Vanuatu's annual cocoa crop. Consequently Malekula continues to provide the majority of cocoa, with Santo the second-largest source of production.

Twenty five per cent of Vanuatu's annual cocoa exports by volume are accounted for by Kaoka. This is joint partnership project involving the DARD, and members of the French Government sponsored project, POPACA. This project started in 2002 and will end in 2007. It involves marketing and export of organic cocoa as a niche product in France (Table 26). Although certified organic, there are continuing quality-related problems which need to be addressed. A new cocoa production handbook has been produced in Bislama by DARD, POPACA and Vanuatu Agricultural Research and Technology Center (VARTS)[67]

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[65] Government of Vanuatu, 2001. "Programme of Action for The Development of Vanuatu, 2001-2010", Country presentation at the Third United Nations Conference on Least Developed Countries, Brussels, 14-20 MAY 2001., Prepared by the Department of Economics and Social Development, Ministry of Finance and Economic Management. (Document ID. A/CONF.191/CP/28, 24 November 2000).

[66] Gay, Daniel.., May 2005. *Baseline study of the trade situation and business environment in Vanuatu*, Department of Trade, Industry and Investment, Government of Vanuatu, Port Vila, Vanuatu.

[67] *Smol Buk Blong Gruem and Wokem Gudfala Kwalati Kakao*, September 2006

**Table 26. Organic cocoa export volumes 2000 - 2005** [68]

| Year | Tonnes |
|---|---|
| 2000 | 70 |
| 2001 | 68 |
| 2002 | 206 |
| 2003 | 102 |
| 2004 | 125[69] |
| 2005 | 317 |

In 2005, Kaokas annual turnover from export of 317 tons was valued at about US$405,000 (or 45 million vatu) and its activities are responsible for almost 90 per cent of Vanuatu's cocoa sales in Europe. The organic product can command a premium of up to 40 per cent. However there are question marks as to the long term viability of organic cocoa as rats eat about 70 per cent of the crop. Some industry observers suggest that "Fair Trade" certification is a better way to beneficiate the crop and is compatible with conventional methods of rodent control.

### 1.6.5 Kava

Kava is a traditional crop grown by some PICs, which is used to make a relaxant and psychoactive drink. The Vanuatu kava, comprising of some 60 varieties, is of particularly high quality. In recognizing the importance of kava, government has prescribed it and had undertaken two research studies on the crop's agronomy and its marketing opportunities. All marketing companies are required to be licensed by the VCMB. The dried form was exported to the EU for pharmaceutical industry (banned in 2002) while the fresh roots are exported to nearby New Caledonia, Fiji, and Australia. Kava is again becoming an important export crop despite the European ban. Efforts continue to lift the ban by EU-member countries such as Germany and UK (see Appendix 10). In the meantime resources are been devoted via the Vanuatu Chamber of Commerce and Industry (VCCI) to improve quality at the national level as well as developing ennobled cultivars. Marketing in China and India is being considered. As a consequence of a trade dispute, kava exports were banned to Fiji for a period which impacted export returns in 2005. The main kava exporters are based in Luganville, Espirito Santo. These include Valele, Localex Ltd., and Clean and Green Fruits and Vegetables (CGFV). Due to changes in the marketing arrangements by VCMB all these export licenses have been revoked and only, Valele, is currently allowed to export kava.

Valele was already one of the largest exporters of kava. The kava chips and roots are re-processed and dried in his dock before shipping to Fiji and New Caledonia. The exporter has over 15 purchasing agents throughout the main kava producing islands who then ship it to the Santo factory for export.

Localex, previously one of the largest exporters of dried kava in Santo marketed to Hakka and South Pacific Food Distributors in Australia. More recently markets for dried kava chips and roots have been opened up in Fiji and New Caledonia. Localex had developed a very attractive packaging for root crops, which is in compliance with Australian quarantine standards for exports. The company has also build proper dock storage and a shed for re-processing of dried kava before packed for export.

CGFV (Vanuatu) processing plant is not fully operational and is only involved with exporting instant kava powder in bulk to USA, Poland, and Russia. China is a new market the company is looking at penetrating with a large population. The export performance of the enterprise is very low but there are a lot of capabilities for improvement and concentrating on high value crops. There is no competition for instant kava product in the international markets. Product packaging is very attractive and suits the international market standard. Heavy promotion for instant kava has been facilitated by VCCI to New Caledonia markets for the last 2 years and recently at the Pacific Trade Expo in Auckland, New Zealand.

There is the potential for conflict with VCMB, the reconstituted regulator and marketing board for kava. Kava was put back onto the VCMB's "prescribed commodity" list in late 2005 by Minister of Trade for the first time since 1999 and the exporters now have to adjust to trading in VCMB prescribed commodities. The future of the

[68] Source: Kaoka
[69] Cyclone Ivy

kava industry requires a stable policy that will ensure sustainability of production and markets. More importantly the innovation shown by the industry in beneficiating the product (e.g. instant powder) needs to be encouraged.

### 9.6.6 Coastal fisheries and marines resources [70]

Fishing may offer great potential not only within the 6 miles national water limit but for deep sea fishing (12-200 miles EEZ). However there were differences of opinion on the availability of fish. Table 27 shows the situation in 1999. Close examination of maps of fishing intensity in the South Pacific show fairly intense activity by tuna long-liners in New Caledonia and Fiji Islands, located on either side of Vanuatu, is fairly suggestive.[71]

**Table 27: Fisheries supplies - 1999**

| | *Production* | *Imports* | *Exports* | *Total supply* | *Per caput supply* |
|---|---|---|---|---|---|
| | Tonnes live-weight equivalent | | | | Kg per year |
| Fish for direct human consumption | 2,930 | 1,316 | 113 | 4,133 | 20.7 |
| Fish for animal feed and other purposes | 100 | - | 100 | - | |

Source: Government of Vanuatu (various documents); Gillett and Lightfoot, 2001.

Estimated employment in 1999 was 2,500 people generating a gross output in the year 2000 of US$ 4.5 million. Compared to other Pacific Island countries, inshore marine areas are not extensive in Vanuatu. Inner reef areas are limited to narrow fringing reefs and the area covered by mangroves is quite small. Vanuatu shares maritime borders with New Caledonia, the Solomon Islands, and Fiji. Vanuatu's fisheries resources are exploited domestically at the subsistence, artisan and industrial levels. The weight of sea products sold over the period 2001-2004 (to 2005 in the case of aquarium products) is shown in Table 28.

**Table 28: Fisheries exports from Vanuatu (kg)**

| | *Fish* | *Trochus* | *Giant clams* | *Green snail* | *Bêche-de-mer* | *Lobster* | *Shark fin* | *Aquatrade* ♣ |
|---|---|---|---|---|---|---|---|---|
| 2001 | 6,658 | 87,013 | 10,008 | 0 | 47,694 | 3,494 | 0 | 35,609 |
| 2002 | 82 | 53,751 | 737 | 0 | 8,525 | 78 | 22 | 48,509 |
| 2003 | 3,621 | 12,450 | 1,652 | 507 | 11,274 | 0 | 87 | 136,508 |
| 2004 | 500 | 26,130 | 585 | 227 | 70,701 | 0 | 48 | 114,193 |
| 2005 | | | | | | | | 121,006 |

Source: 10th Port Vila Chamber of Commerce and Industry Annual Report

♣ Aquatrade refers to the collection and sale of ornamental or aquarium fish in the US and Australia. Aquarium fish is not for consumption. A number of local companies engaged in the industry arrange with local coastal communities to collect the ornamental fish for a fee.

## Industrial - deep sea - fishing

Industrial tuna fishing by Japanese, Taiwanese and Korean fleets has taken place in Vanuatu's waters since the mid-1950s, mostly targeting albacore tuna. By 1983, 20 Taiwanese longliners were based at Palekula targeting albacore in the Tasman Sea between April and August and fishing in Vanuatu waters from September to March. However, in 1977 these vessels changed their bases of operation to Fiji and American Samoa as a result of fishery developments in those areas.

A fledgling domestic tuna longline fishery operated sporadically in the 1990s. The fishery involved small (10-15 m) vessels which were either locally-owned or operate under charter arrangement with local or joint-venture

[70] FAO, April 2002. 'Fishery country profile', FAO, Rome. Document Reference No. FID/CP/VAN Rev. 2 April 2002
[71] Hunt, C., 2001.

companies. One vessel operated in 1995, landing an estimated 24t of catch, and two more vessels became operative in 1996. By 1999, no locally-based longliners were operating.

The deep-bottom fishery was established as a result of government initiatives following a series of fishing surveys of deep reef slope resources in the 1970s which indicated the presence of commercially significant stocks of deep-water snappers and groupers. In 1982 the Village Fisheries Development Project (VFDP) was established to encourage rural fishers to enter this fishery. During the 1980s and early 1990s the fishery produced an average of about 50 Tala per year, with a peak of 82.5t in 1985. The fishery became a significant source of rural income in certain islands, but this was only achieved at a significant cost to government, which used technical assistance funds to subsidize many aspects of the fishery for over 15 years. Eventually donor support expired and most of the rural fishing centers were closed down.

Between 1974 and 1979 Japanese pole-and-line vessels also fished in Vanuatu and landed catches at the SPFC base. Fishing was concentrated in the area to the north and west of Espiritu Santo and catches in the order of 300 - 1,600t per year are recorded, with an average of 5 to 8t per vessel-day. In 1989 Taiwanese vessel operators reached agreement with the Government of Vanuatu to recommence fishing in Vanuatu waters in return for a fixed annual fishing access fee of US$5,000 per vessel. According to the Fisheries Department, in 2005 there were 199 vessels licensed under bilateral arrangements to fish in Vanuatu waters. For this, the Vanuatu Government received US$11,000 per vessel per 12 month permit in fees.

Under the terms of the US multilateral tuna treaty, which provides for access by US purse seine vessels to the EEZs of those PICs that are party to the agreement including Vanuatu, the US purse seine vessels may fish in Vanuatu's EEZ. In reality, however, purse-seining conditions in Vanuatu's EEZ are generally poor and fishing effort by this fleet has been slight, with no catches being reported in recent years. Although it is estimated that in 1999 the combined longline and purse seine tuna catch in Vanuatu waters was about 118 tonnes,[72] this does not reflect the actual numbers of fishes caught because in 2005, over 8,800 tonnes (Table 30) were caught. This discrepancy may be explained by the poor surveillance as well as under-reporting by foreign vessels operating in Vanuatu's EEZ. The Monitoring Control and Surveillance (MCS) summary report for 2005 shows that 107 fishing boats were registered to fish in the Vanuatu EEZ in year 2005 (Table 29).

**Table 29. Number of foreign and local fishing vessels operating in Vanuatu's EEZ (in 2005)**

| *Category* | *No. Vessels* | *Type* | *Country of Registration* |
|---|---|---|---|
| Local Fishing Vessels | 12 | Trolling, Long Line, Deep Bottom | |
| Foreign Fishing Vessels | 95 | Long Line Only | 47 China, 22 Taiwan, 18 Fiji, 2 Cook Island, 1 Kiribati, 1 Belize, 2 Senegal, 1 Korea, 1 Japan |

Source: Government of Vanuatu, Fisheries Department, MAFF, Vanuatu

199 Foreign Fishing License were issued in 2005 to fish in Vanuatu EEZ so it appears that only half these permits were taken up. Twelve local fishing licenses were issued in 2005 to fish in the Vanuatu EEZ. The total Vanuatu registered fishing vessels is about 48. Most of their catch is landed in other countries.

**Table 30. Tonnes of annual deep-sea catches by longline fleets in Vanuatu EEZ (in 2005)**

| Species | Albacore | Big Eye | Yellow Fin | Others | Total |
|---|---|---|---|---|---|
| Tonnes | 6,127 | 248 | 1,450 | 1,016 | 8,842 |

Source: Government of Vanuatu, Fisheries Department, MAFF, Vanuatu

The locally-based offshore fishing vessels, which occasionally are based in Vanuatu, export fish to Australia and Japan as well as sell product to local restaurants and hotels. Catches by foreign-based vessels are rarely landed in

[72] FAO, April 2002. "Fishery country profile", FAO, Rome. Document Reference No. FID/CP/VAN Rev. 2 April 2002

Vanuatu. The fish, now almost entirely taken by longline gear, is mostly delivered to canneries in Levuka, Fiji and Pago Pago in American Samoa.

**Trochus and bêche-de-mer**
Trochus and bêche-de-mer (sea cucumber) are also collected in a low-technology, labor-intensive manner characteristic of subsistence fishing. These species form a valuable portion Vanuatu's of marine export products but there are question marks on sustainability. About 100 tonnes of trochus were harvested annually in the 1900s, most of which is processed into button blanks in the nation's capital, Port Vila. This has now declined to 26 tonnes in 2005 (Table 28). The blanks are exported to button factories in Asia and Europe. This industry appears to be in long term decline.

**Aquarium fish**
A small fishery and export operation for aquarium species is based on Efate, and involves four companies. Ornamental fish and 'live rock' (coral fragments coated with micro-organisms, used to condition marine aquaria) are collected around Efate and air-freighted to overseas markets. According to the Fisheries Department, the value of aquarium fish exported in 1999 and 2000 was about US$38,000 and $15,000, respectively. This shows continued growth in kg terms (Table 28) despite the introduction of an export tax which has slowed development of the industry.

There is considerable discussion between ornamental fish collection by coastal people in local areas and the recreational scuba divers. Both coastal fisheries and recreational scuba diving activities should be concerned with sustainability of fisheries resources through overfishing as damage to the coral reefs. Further the coastal communities who permit fish collection benefit far more financially than those who only work with scuba diving companies. Strict environmental monitoring and the implementation of a management plan would therefore make economic sense. However given the limited capacity for government regulation, it may be necessary to entirely ban the fish trade, given that reef fish are crucial for the tourism industry[73]. Two companies are also planting rock so as to establish coral on them for subsequent export.

**Aquaculture**
There is little commercial or private-sector aquaculture in Vanuatu. The Fisheries Department operates a small hatchery for trochus shell (*Trochus niloticus*), producing juveniles which are used in experiments to study the impact and potential of reef re-seeding as a means of enhancement the wild trochus fishery. Similar experimental work on green snail (*Turbo marmoratus*) is also carried out. These facilities are currently being refurbished and are temporarily closed down. Green snail harvesting has now been banned until 2020.

There are small developments for farming of freshwater Tilapia (two projects) and a project to produce marine prawns. Teouma Prawns produced about 10 tonnes of frozen prawns for the local market in 2005 and now export to NZ

**Subsistence and coastal fishing**
Artisan fishing with bottom hand lines primarily targets deep-water snappers and groupers, while hand-lining and gill-netting target shallow reef fish species. Annual production of deep-bottom, reef and lagoon fish was about 110 to 140 tonnes in the 1990s. It has been recently estimated by the Asian Development Bank that the catches of Vanuatu's subsistence and coastal commercial fisheries are worth US$3,974,587 and $681,801, respectively. It has also been calculated that subsistence and commercial fishing is responsible for about 2.2 per cent of Vanuatu's GDP.

There are now restrictions on the catching of lobster because of concerns about sustainability. The Department of Fisheries is planning to require licenses for artisanal fishing for data collection purposes.

**Development prospects of the fishing industry**
The entry of larger-scale, private-sector operators into the fishery has revitalized it to a certain degree, but care will need to be taken not to allow catches to exceed MSY or catch rates to fall below profitable levels. MSY for the fishery is estimated to be, at most, 300t per year, but catches will probably need to be kept below this level if the fishery is to remain economic.

An urban-based sport-fishing charter industry has grown in tandem with the expansion of tourism and is thought to have potential for further growth. This fishery is an important provider of fresh fish to the Port Vila area. In

[73] Gay, Daniel., May 2005. *Baseline study of the trade situation and business environment in Vanuatu*, Department of Trade, Industry and Investment, Government of Vanuatu, Port Vila, Vanuatu.

Port Vila, the FADs are heavily used by sport-fishing operators targeting billfish, tunas and other large coastal pelagic species. Eight sport-fishing charter vessels ranging in size from 6-12 m operate from Port Vila. The sport-fishing industry relies on tourism for its customer base.

Local consumption of the product is by private households and the numerous hotels and restaurants catering to Vanuatu's busy tourist trade. The preference is for fresh or frozen product and apart from filleting and packing there is little locally-based value-added processing. Local demand and prices for deep bottom snapper are high and local marketing is probably more profitable than the export trade.

The fact that several neighboring countries have established viable tuna longline fisheries, suggest that Vanuatu could do the same. Plans are being discussed which may require all fish caught in the Vanuatu EEZ to be landed in the country for processing and onward sale. In particular, officials are seeking investment for a cannery or loining plant, enterprises which have proved viable in the past. Plans have been made to build a docking facility for tuna boats. Such a facility, however, would best be achieved as a joint venture with a foreign company, as limited capital, expertise or know-how currently exists in Vanuatu. A suggested site is the old deepwater port at Palekula, which has the advantage of being further north than Vila, at around 15 degrees south and therefore nearer Albacore stocks[74].

Subsistence fishing is second only to agriculture as a food source for villagers living in Vanuatu's rural areas. Traditional management practices have been used in the past to conserve fishery stocks, but with advances in fishing techniques and equipment, and increasing pressure for financial reward from fishing, customary fishing practices have declined in some areas. The resulting pressure on inshore resources and numerous examples of localized resource depletion has heightened awareness of the need for better management of inshore fishing activities. Renewed interest in the potential of customary marine tenure to conserve inshore resources is now being shown both by Government and by resource users.

Any progress in development of aquaculture in Vanuatu is likely to be from private sector investment rather than the Government attempting to initiate commercial activities by direct involvement.

## 1.7 Other actual and potential agricultural exports

### 1.7.1 Coffee

A fair amount of coffee is grown in Vanuatu. Little is exported due to depressed world prices but it is available in local supermarkets in a roasted ground form. The industry has had fairly mixed past with, on occasion, substantial investments by the Commonwealth Development Corporation, among others. The main center of production is on Tanna Island which is about 200 km south of Port Vila (Efate Island). Production in 2006 is expected to be about 15 tonnes, mainly by the Tanna Coffee Development Company (TCDC). A coffee development program is underway for three years with the support of POPACA (*Projet d'Organisation des Producteurs Agricoles pour la Commercialisation Associative*). POPACA has, for example, produced an excellent handbook on coffee production in Bislama (*Smol buk blong groem mo wokem kofi)*. The aim is to bring about 400 small scale coffee farmers into the cash economy. Separate plans are in place to rehabilitate the old commercial 'core' plantation.

TCDC operate a small roasting and packaging operation near Port Vila with a capacity of 100 tonnes per annum. Small amounts of exports are made to the USA, Japan, Taiwan, New Caledonia, New Zealand and Australia with high levels of interest. It is anticipated that with organic and Fair Trade certification that a substantial premium over current world prices is possible.

Finding markets has been relatively easy including the US and Europe who will pay a premium price but who demand larger quantities than can be supplied. The dispersion of crops around the bush in Tanna, damage to crops done by natural disasters along with the lack of integration of workers into the cash economy, all combine to make production inconsistent. Moreover unlike in pre-independence times, production is smallholder-based rather than done on plantations.

[74] Ibid.

### 1.7.2 Fresh produce

Limited amounts of fresh produce are shipped to New Zealand. Main exports are baby corn, sweet corn and limes. Available freight space is in the order of three tonnes per week. There are few restrictions on the maize or some of the citrus products but the grapefruit must by treated by the HTFA facility. Citrus originates from Sky Land farm consisting mainly of Tahitian limes, star ruby grapefruit and pumelos (pampelmousse). New Zealand Biosecurity has determined that Tahitian limes and pumelos are not fruitfly hosts and can be exported under a general phytosanitary certificate. The limiting factors with citrus exports relate more to lack of availability of freight space. A preliminary fact gathering and logistical exercise - time and temperature - conducted by the author to examine sea-freight as an option for citrus indicates that a deeper study on marketing and an accompanying business plan is necessary prerequisite (see Appendix 9; 9 (a); 9 (b); 9 (c), 9 (d)).

### 1.7.3 Fresh and frozen root crops

Root crops currently form a small proportion of total exports. These exports will probably not constitute a major source of foreign exchange although it does generate employment for a number of farmers in Santo. Overseas markets are niche, rather than conducive to large-scale production. Vanuatu Fresh operates a factory outside Port Vila processing root crops in a frozen form. Main raw materials are taro, yams and sweet potato.

The bulk of the output is sold in New Zealand. There are no phytosanitary or other restrictions e.g. the supermarket buyers in New Zealand do not ask for microbiological testing or Packhouse of farmer certification. The main constraint is consistent raw material availability. This factory also operates Vanuatu's HTFA facility as a private venture. There is stiff competition from Fijian root crop exporters to Australia who consistently undercut Vanuatu exporter prices by around 20 per cent. There is an element of cross subsidization among exporters whose main businesses are in other industries (retailing, kava) and the long term prospects do not look promising.

### 1.7.4 New products

A range of natural products is produced by various entrepreneurs in Vanuatu. These include oil and extracts from tamanu (*Calophyllum inophyllum*), noni, sandalwood, ylang–ylang, niaouli and vanilla. Vanuatu is a natural producer of various exotic nuts that could have increasing export market potential. However, there appear to be a complex of problems relating to motivation of villagers to collect nuts, transport facilities, etc. The possibility of plantation scale nut production could be examined.

### 1.7.5 Sectoral aid projects [75]

The Asian Development Bank (ADB) via The Country Strategy and Programme Paper 2005-06 has identified four priorities: good governance and economic management; private sector development; infrastructure development; and, social development and the environment. Two non-lending products are identified for 2005 have some importance for agriculture. These are the corporatization of the Ports Authority; and Rural Productive Skills Development. In 2006 additional products identified include the preparation of Urban Sanitation and Health Project.

Between 2003-2004, Australia bilateral aid totaled AUD$15 million which was largely concentrated on social sectors - health, education law and order, and land use planning in rural areas. Aid doubled in 2006 to $30m with "more focus on productive sector". In addition, Vanuatu has access to financial and technical assistance resources from other organizations such: Small Grants Scheme (assisting villages in developing basic infrastructure); the Pacific Technical Assistance Facility (providing Australian specialist technical support) and; the Australian Staffing Assistance Scheme (capacity building for officials in the public service). Australia also funded the 4th National Agriculture Trade Show held in Port Vila, Vanuatu

Australian Centre for International Agricultural Research (ACAIR)[76] programmes in Vanuatu have been in fisheries, crop sciences and forestry in partnership with the Ministry of Agriculture, Quarantine, Forestry, and Fisheries (MAQFF) as well as with some farmers' associations and linkages with the French Agricultural Research Centre for International Development (CIRAD) and the private sector. The core strategy is identified by the following statement;

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[75] World Bank, Country Chapter: Vanuatu, World Bank, Washington D.C.

[76] Australian Centre for International Agricultural Research (ACIAR) website; Pacific\lcds\Vanuatu\ACIAR - Country Vanuatu.htm

*"With horticultural crops, market analysis of crop commodities for identification of niche markets that Vanuatu can fill is required".*

This is being underpinned with crop protection and post-harvest technology research in order to underpin development of horticultural export markets. Earlier ACIAR support for research on root crops in the region such as taro, yam and sweet potato is extended, through production of field guides and other extension material. Finally livestock research is more important in Vanuatu than elsewhere in the Pacific Islands.

European Union; The Country Assistance Paper for Vanuatu focused on human resource development as the development priority with Euro €20 million has been allocated under the 9th EDF. POPACA; the main donor project in the sector, is co-financed by France. POPACA aims to help establish viable agricultural producers' organizations through the provision of technical expertise. This starts with the Extension Officers of the Department of Agriculture, training at different levels, research, basic infrastructure facilities, marketing advice, and a modest credit line. The project started in late 2002 and was scheduled for completion in November 2005. However the POPACA Producers Organization Project - under 9$^{th}$ EDF - was the biggest agricultural project, with mixed success. Extra funds may be committed to the sector under EDF 10.

Japan via Japan International Cooperation Agency (JICA) assists in four areas including basic education, health systems and rural development. This includes training programmes run by VCCI.

New Zealand (NZAID) is providing NZ$6.36 million in bilateral assistance to Vanuatu in the priority areas of, basic education, law and order, and with civil society. New Zealand has also assisted VCCI for publicity and training in kava production.

The US Peace Corps has four volunteers working under the umbrella of VCCI on Tanna, Malekula, Pentecost and Ambae as extension officers.

The World Bank TA program looks to;

- help introduce a participatory school quality improvement model
- support the Government's policy of administrative decentralization in Malampa province
- improve the public expenditure management of infrastructural assets
- safeguard service delivery by improving resilience to natural hazards and improving the incentives for private sector growth and employment including reducing the costs of doing business.

Vanuatu has qualified for the Integrated Framework for Least Developed Countries, which is the multilateral donor community's (World Bank, IMF, UNCTAD, UNDP, WTO and ITC) primary tool for gearing up trade related assistance.

Vanuatu has had assistance from a range of multi-lateral and bi-lateral donors in the fisheries sector. This has included the funding of expatriate staff positions within the Department of Fisheries, establishment and operation of rural fishing centers, provision of vessels, FAD materials and equipment, construction of aquaculture facilities, collaborative research costs, and travel costs for training and attendance at meetings.[77]

Important donors have included the UK, France, China, Australia, New Zealand and Japan as well as the EU. Other donors have included ACIAR. Assistance is also obtained from the international organizations of which Vanuatu is a member, including FAO, UNDP, ESCAP, and other United Nation agencies. The regional organizations serving Pacific Island countries, including the FFA, the SPC, the South Pacific Regional Environment Programme, the Forum Secretariat, and the South Pacific Applied Geosciences Commission (SPGC) have been active in supporting Vanuatu's fisheries sector.

[77] FAO, 2002. *Fishery Country Profile - Republic of Vanuatu*, FAO Document Ref: FID/CP/VAN Rev. 2

# 2. FOOD SAFETY CONTROL SYSTEMS

## 2.1 Government and statutory institutions

A list of the major government and statutory institutions involved in food regulation and control are given in Table 31 together with a summary of their roles. Food regulatory systems and standard setting systems are the responsibility of the Ministry of Health (MoH). The Environmental Health, Health Standards and Inspection Unit are responsible for enforcement. In the urban areas (Port Villa and Luganville) inspection and enforcement are carried out by the local municipal Environmental Health Officers rather than Ministry officials so as to avoid duplication of effort. The National Codex Enquiry Point for Vanuatu is Mrs Emily Tumokon at the Food Technology Development Centre (FTDC).

Ministry of Trade Commerce and Industry (MTCI) is responsible for trade negotiations including WTO, EU-ACP, Pacific Agreement on Closer Economic Relations (PACER), and the Pacific Island Countries Trade Agreement (PICTA). They are also responsible for Codex and the FTDC is a section within MTCI. Vanuatu is a full member of OIE and Codex but not of IPPC or WTO. There is no agricultural market research within the Department of Industry, Trade and Commerce or MAFF but there is a corps of information and services on production among the senior staff within the Divisions.

Currently awareness and information on quarantine requirements of export markets is the responsibility of the quarantine section of MAFF which is the OIE contact point for Vanuatu. The VQIS is part of the Ministry of Agriculture, Quarantine, Forestry, and Fisheries (MAFF) as the designated National Plant Protection Organization (NPPO) although Vanuatu is not currently a member of the International Plant Protection Convention (IPPC). VQIS administers the 1997 Phytosanitary Act which is currently being reviewed with input from the Secretariat of the Pacific Community (SPC).

There are strong bilateral links with New Zealand who have helped with legislation and have approved several products treated by the HTFA process.[78] They have also installed a HTFA machine in Vanuatu which is run by VanuatuFresh, a private company. Australia (through AQUIS) has granted equivalence for HTFA treated produce but there is no significant commercial demand.

The designated MAQFF IPPC/OIE contact point for Vanuatu is Benuel Tarilongi, Director VQIS. This department is responsible for surveillance, quarantine, inspection and issuing of Phytosanitary and animal health certificates. There are three main sections. These are the Plant Protection Section, the Livestock section and border control. The Border control section has 10 staff on the island of Efate monitoring movement at Bauerfield Airport and Port Vila Harbour. AusAID and New Zealand have helped develop an emergency plan for control of accidentally introduced pests. There is also monitoring and trapping of fruit flies in urban centres and where movement of people occurs through non designated ports of entry (near New Caledonia and Solomon Islands). The Veterinary section mostly operates in Luganville on the island of (Espiritu) Santo which is the centre of veal production in Vanuatu.

## Fishing Industry; institutional arrangements [79]

Responsibility for the development and management of Vanuatu's fisheries is that of the Fisheries Department of the Ministry of Agriculture, Livestock, Forestry and Fisheries. The Department is headed by the Director of Fisheries and has three main sections:

- Resource Assessment, Management, and Computer Information
- Administration and Finance
- Rural Fisheries Development Programme.

In the mid-1990s a total of 29 staff were employed in the Fisheries Department. In 1999 the figure dropped to 15 permanent officers as a result of the Government's Comprehensive Reform Programme.

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[78] For example, see WTO G/SPS/N/NZL/317 covering: Citrus (*Citrus aurantifolia, C. grandis, C. limon, C. paradisi, C. reticulata, C. reticulata x Citrus paradisi and C. sinensis*).

[79] FAO, *Fishery Country Profile - The Republic of Vanuatu*, FAO Document Ref: FID/CP/VAN. Rev. 2. April 2002.

The main legislation dealing with the management of fisheries in Vanuatu is the Fisheries Act (1982). Among other items the Act contains provisions concerning:

- Fishery access arrangements
- Local and foreign fishing licenses and their conditions
- Regional register of foreign fishing vessels;
- Foreign investment in fisheries;
- Marine reserves;
- Licensing of fish export processing establishments.

Fisheries legislation relates to the control of boats and fishing rights such as issuing licences. Sales of various marine species are monitored and suspended if sustainability is an issue e.g. green snail. The Act was amended in 1989 with changes including certain definitions (e.g. definition of a local fishing vessel), and in the powers of the Minister to enter into foreign fishing agreements, and the placing of observers on fishing vessels within the EEZ.

The Department of Fisheries maintains direct contact on technical issues with regional and international organizations dealing in fisheries. Policy and other matters are managed in the first instance through the Department of Foreign Affairs. Vanuatu is a member of the South Pacific Commission (SPC), the South Pacific Forum Fisheries Agency (FFA) and the South Pacific Regional Environmental Programme (SPREP). Vanuatu is also a signatory to a number of treaties and agreements relating to the management of regional fisheries, including:

- Treaty on Fisheries Between the Government's of Certain Pacific Island States and the Government of the United States of America;
- Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific;
- Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region.

Vanuatu is a signatory to the United Nations Convention on the Law of the Sea (UNCLOS), the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Vanuatu is also signatory and member of the Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

## 2.2 Parastatal organizations

### 2.2.1 The Vanuatu Commodities Marketing Board - VCMB

The VCMB is a statutory body that was launched in April 1982 with the intention of providing stability to copra prices using European Stabex funding and to regulate export quality via a premium paid for sun-dried copra. It started to regulate cocoa via the VCMB Act of 1984. The end of the Stabex system amongst other factors resulted in the board's near-bankruptcy by early 2003 and the Act was amended, opening up the market to a number of licensed dealers, currently numbering four (reduced back to one in controversial circumstances during the course of the consultants visit to Vanuatu). The VCMB no longer buys copra or cocoa on its own account. However, the VCMB was given the right to charge a variable levy on all exports of cocoa and copra in order to pay for its activities. By May 2004 there was a proposal to increase this fee from four per cent to six per cent of the CIF export value. These are effectively export taxes. VCMB now has control over export licensing of copra, cocoa and kava and the ability to levy fees based on a percentage of the export value.

**Table 31. Key institutions in Vanuatu agricultural and fish exports**

| *Organizations* | *Key actors* | *Activities* |
|---|---|---|
| **Governmental and parastatal institutions** | | |
| Ministry of Agriculture, Livestock, Forestry and Fisheries. | Fisheries Department headed by the Director of Fisheries | Resource Assessment, Management, and Computer Information<br>Administration and Finance<br>Rural Fisheries Development Programme.<br>Registration and regulation of EEZ permits |
| | Vanuatu Quarantine and Inspection Services (VQUIS) | Inspection and Phytosanitary certificates, Training, Development of regulation. Beef residue testing program. Vanuatu is a member of OIE but not of IPPC. Contact point for both is Benuel Tarilongi (Director, VQIS) |
| Ministry of Health (MoH) | Environmental Health, Health Standards and Inspection Unit (Mr. Amos Willie Morris) | Inspection and licensing of food manufacturing and vending establishments |
| Industry, Trade and Commerce Department | Mr Rantes Bamgarae Jimmy | Trade and Investment |
| | The Food Technology Development Center | Codex contact point |
| Ministry of Finance and Economic Development | Department of Customs and Inland Revenue | Data collection (exports) |
| Port Vila Municipality | Environmental Health, Health Standards and Inspection Unit | Inspection and licensing of food manufacturing and vending establishments in urban area |
| Fisheries Department (MAFF) | Jason Raubani | Licensing and monitoring of fisheries |
| Vanuatu Commodity Marketing Board | Vanuatu Commodity Marketing Board | Purchase commodities<br>(copra, cocoa and kava). Vanuatu Coconut Products Ltd (VCPL) is an enterprise with a copra-processing unit owned by VCMB |
| **International Institutions** | | |
| European Union; POPACA | François Japiot, Chef de Projet | investment in organic smallholder coffee and cocoa production |
| European Union; CDE | | Investment in beef residue testing program |
| **Private institutions** | | |
| Vanuatu Fresh | Mr. Michel Jacobe, Operations Manager | Frozen root crop exports. Also operate HTFA facility |
| Rainbow Gardens | Mrs. Cornelia Wylie, Manager | Sweet corn and baby corn exports |
| Sky Land Farm | Mr. Des Park, Manager | Citrus and mango exports |
| Pacific Natural Oil Ltd | Ms. Laura | Development of natural oils and scents |
| Unelco (Suez) | Unelco Ltd., (private water authority) | Water potability testing |
| Vanuatu Abattoirs Ltd | Janette Adams, General Manager | Beef exports |
| Tanna Coffee Development Company | Terry Adlington and Marilys Halasz (Owners) | Coffee production, processing and marketing |
| Rainbow Gardens | Mrs. Cornelia Wylie, Manager | Baby corn and sweet corn exporters |
| Localex Ltd | Leong Man San | Localex is one of the largest exporters of root crops and dried kava in Santo |
| Clean and Green Fruits and Vegetables (Vanuatu) | Mr. John Fordham | kava, vanilla and fruit exporter (closed down) |
| Vanuatu Virgin Coconut Oil | Mark Bowker, Director. | Virgin coconut oil and other by products |
| Kaoka | Mr. Andre Depert (Buyer) and Mr. Jacques Tronquet (shareholder) | The overall objective is to secure a niche market in Paris for organic cocoa |
| Santo Meat Packers | Toru Mochizuki, managing director | Production of beef for export |
| Valele Trust | Peter Colmar, managing director | Valele is one of the largest exporters of kava, cocoa, tamanu oil who owns one of the largest cattle property located on 2000 hectares of land in Santo |

**Table 31. Key institutions in Vanuatu agricultural and fish exports**

| *Organizations* | *Key actors* | *Activities* |
|---|---|---|
| Vanuatu Coconut Products Ltd. (VCPL) | Mr. Barry Taravaki, Manager | Coconut oil and by-product manufacturer owned by Vanuatu Commodity Marketing Board |

### 2.2.2 Vanuatu Chamber of Commerce and Industry

The Vanuatu Chamber of Commerce and Industry (VCCI) is a government-funded body. In partnership with the EU-funded POPACA agricultural project (which is supporting commercialization in the farming sector), the VCCI has recently been involved in setting up farmer and producer associations.

## 2.3 Analytical services

In terms of the availability of laboratories to conduct analytical tests, the following facilities have been established; one food laboratory; three laboratories for water quality management; 2 part office and laboratory - within two beverage companies - testing basic physical and microbial tests of their products; and the Quarantine Department that investigates *salmonella* and conducts film testing for bacterial counts on fresh meat [cattle] produced at the abattoir (see Table 32).

**Table 32. Food and water laboratories in Vanuatu** [80]

| Laboratory | Focus area | Type of test | Number of tests |
|---|---|---|---|
| Food Technology Development Center | Food testing | Not Active | 0 |
| Vanuatu Quarantine and Inspection Service | Meat | Microbiology | 3 |
| Unelco Suez (private water utility) | Water | Chemical and microbiology | 28 |
| Geology, Mines and Rural Water Resources | Water | Physical, chemical and microbiology | 12 |
| Vanuatu Beverage | Juice | Physical and microbiological | - |
| Vanuatu Breweries | Beer | Physical and microbiological | - |

The FTDC is part of the Department of Industry, Trade and Commerce and was originally set up by FAO. The laboratory has been unable to accumulate equipment, resources or offer testing services. The main functions of FTDC are as a repository of information on Codex, food legislation and information. There have been two missions to Vanuatu, in 1995 and 2000, reviewing food analysis in the context of the FTDC. Neither of these reports led to any activities in terms of input into analytical services.

There are two reasonably set up laboratories in Vanuatu focussing mainly on water quality management. These are the Unelco Suez and the Department of Geology, Mines and Rural Water Resources (GMRWR). Unelco Suez is purely in the private sector whereas GMRWR has had considerable input from the New Zealand Overseas Development Assistance (NZODA) both in setting up and equipping the laboratory. The Public Health Laboratory works closely with Unelco Suez and GMRWR using portable water testing kits supplied by the WHO. The Quarantine laboratory was set up in 1980 to look at animal health and upgraded in 1987 by New Zealand Ministry of Agriculture and Food (NZMAF). The tests carried out by Quarantine are mandated by the National Meat Act that made these tests mandatory in 1987. However the VAL has set up a small microbiology laboratory at their premises at a cost of US$13,500 (or 1.5 million Vatu) which VQIS use for tests at VAL.

This was because VAL was finding feedback on results too slow when samples were processed at government laboratories. The brewery and beverage laboratories carry out tests according to company guidelines. More sophisticated tests, in the case of Vanuatu Breweries, are carried out in Sweden.

Vanuatu has no national laboratory standards and the methods used by each laboratory are from a wide variety of sources. No laboratory or test method is internationally accredited though there are intentions to do so by Unelco Suez. Some inter-laboratory trials are carried out by Unelco Suez and GMRWR. Unelco organize visits from overseas technicians (about every two years) and training abroad for their one lab technician. VAL, the water

[80] National Consultancy on Food Laboratory Assessment in Vanuatu, December 2002

authority at Luganville, and a couple of private water networks operating on the outskirts of Port Vila also subcontract Unelco Suez to carry out their water tests.

## 2.4 National food safety legislation

Legislation covering food safety is the Food (Control) Act No 21 (1993) administered by the MoH. A regulation under the Act is in final draft form Food (Control) Regulations (2006). The draft regulations are generally acceptable but need to be reviewed in detail. The Act has been reviewed by various stakeholders including food manufacturers.

The proposed Food (Control) Regulations Order (2006) will probably come into effect within a few months. General hygiene standards are defined for the cleanliness and conduct and health status of food handlers. The regulations set food handling standards including food processing, separation of hazardous substances, thawing and storage of raw foods and ingredients as well as their packaging, and transportation. Also covered are; construction of premises and vending vehicles, equipment and procedures for cleaning and disinfection, hand washing, maintenance, pesticides for pest control and refuse disposal. Conventional sections also set requirements for labelling, naming, list of ingredients, additive, flavourings, net contents, traceability, use by dates, instruction for storage and use. Food premises must be licensed, with the current license on display. The duties and functions of Chief Food Authority are defined together with offences and penalties under the regulations. An interesting part of the regulations covers training - in effect all food handlers must be certified as well as certain salespeople.

There are several minor issues with the regulations e.g. the use of hot air hand driers is not acceptable in certain food industries, the requirement of certification of food handlers will be difficult to enforce where there is high staff turnover, and the list of notifiable diseases should be limited to food borne illnesses. However the regulations are sufficient enough to significantly contribute to food safety standards in Vanuatu when implemented.

VQIS administers the 1997 Phytosanitary Act which is currently being reviewed with input from the Secretariat of the Pacific Community (SPC). There are strong bilateral links with New Zealand who has helped with legislation and have approved several products treated by the HTFA process. Although not a member of the IPPC Vanuatu participates in the regional phytosanitary information system the Pacific Islands Pest List Database (PIPLD) is an important part of the workings of the Quarantine Division giving up-to-date information on the pest status of the various countries and islands.

## 2.5 SPS micro sector projects

### 2.5.1 CDE funding for Vanuatu Abattoirs Limited

CDE funding originates from the EU. This is reviewed in some detail in the section on VAL.

### 2.5.2 Marketing and branding of Vanuatu coffee

The Tanna Coffee Company Ltd is supported by POPACA especially in terms of technical and some financial assistance. Tanna Coffee Company Ltd is also applying for funding from CDE for marketing and branding research.

### 2.5.3 POPECA funding of cocoa exports

Kaoka is joint partnership project which involves the Department of Agriculture and Rural Development (DARD), the Malekula Distribution Center Kaoka (MDCK), located in Lakatoro, Malekula with POPACA providing technical and financial assistance in formation of the cocoa growers association in the main producing islands of Malekula, Malo and Ambae. The project started in 2002 and will end in 2007 which involves marketing and export of organic cocoa to France. Organic cocoa is certified and registered by Eco-cert in Germany.

## 2.6 Macro costs of compliance

A summary of the macro costs of SPS compliance and the proposed associated research projects is given in Table 33 below.

The main demand for residue tests required on any sort of regular basis for full market access of Vanuatu produce is in the beef export industry. These are for a range of pesticides (organochlorines and organophosphates) heavy metals, animal growth hormones and antibiotics. All tests need to be done by a fully accredited laboratory and are beyond the present capabilities of even the Institute of Applied Sciences at the School of Pure and Applied Sciences at USP in Suva. Current costs of sending samples from VAL to New Zealand are in the region of Euro €12,000 to Euro €26,000 per annum. The cost of a fully set up laboratory in Vanuatu would, however, would dwarf these costs and could not be justified by even the most optimistic forecasts of the future size of the local beef industry. Moreover the public health benefits to Vanuatu would be marginal at best.

Outside of Organic and Fair Trade market requirements (as opposed to national requirements) there are no significant demands made of Vanuatu exporters.

**Table 33. Macro cost of SPS compliance – Vanuatu**

| *Organization* | *Objective* | *Costs (USD)* |
|---|---|---|
| Department of Industry and trade with Ministry of Health and various departments in the Ministry of Agriculture, Forestry and Fisheries | Participation by FTDC in regional kava research program | 100,000 |
| | Research in Vanuatu on kava usage and health effects | 500,000 |
| | Research on kava cultivars in Vanuatu | 100,000 |
| Department of Agriculture (VQIS) | Participation in livestock residue testing program | 10,000 |
| Various (Government, NGO and Private sector) | Arrangements for Organic and Fair trade certification | 150,000 |
| **Total Costs** | | **860,000** |

A specific proposal is made in respect of kava. This crop is the subject of a significant research effort in various countries. Vanuatu has the biggest biodiversity of kava and a long history of domestic consumption without any apparent effect on national health. Therefore it is proposed that a specific allowance be made for a targeted medically based research project to be carried out in Vanuatu as part of the regional research programme. The rationale and a more detailed cost breakdown is given in Chapter 11, with further details on the kava ban in global markets (Appendix 10) and proposal for future coordination and funding for kava development in Vanuatu (Appendix 11).

### 2.6.1 Micro costs of compliance

It has been determined - through various conversations - that there have been successes in the certification of beef and cocoa from Vanuatu as organic. The VAL meat processing facility has also achieved organic certification. The case for beef seems to be straightforward as Vanuatu is in the fortunate position of having a virtually disease-free national herd of cattle. Though pesticides and fertilizers are virtually unknown in Vanuatu agricultural systems, so that the entire country is to all intents and purposes organic, certification has not been entirely problem-free. In the case of cocoa, around 70 per cent of the crop is lost to rodents eating pods, and there are no acceptable organic alternatives to conventional baiting. It is questionable whether organic cocoa trade to France could be sustained without first resolving problems with rodents.

### Micro costs of compliance

The determination of micro (enterprise level) costs of organic and 'Fair Trade' certification has been attempted in the three focus Pacific LDCs - Samoa, Solomon Islands, and Vanuatu. This has proven something of an approximate exercise. The reason lies in the nature of the vast majority of the farming systems that feed into export enterprises – the significant exception being Guadalcanal Palm Oil Plantations which has a conventional plantation for raw material supply.

Vanuatu is the most highly agriculture dependant country in the region with a strong traditional production base providing a high level of food security yet facing severe marketing constraints that preclude the export of most types of produce. A typical multi-crop in Vanuatu is described –

> *The gardens are planted to a variety of crops, often inter-planted as single plants, though sometimes planted with patches of one crop, such as sweet potato, taro, yam, or manioc. The soft yams are planted first and take pride of place where the garden offers best conditions for their cultivation. Other crops follow: sugarcane, island cabbage, navisa, pineapple, pawpaw, watermelon, tomato, Chinese cabbage, sweet potato manioc, bananas, taro and kava. A single garden will generally contain many varieties of yam or taro and several other crops.*[81]

This production system coupled with a weak middleman network further hampered by various inappropriate historical projects (e.g. coffee and cocoa) and market interventions (e.g. VCMB) coupled with a difficult inter-island logistical system make provision of inputs, such as certification, to smallholders very problematic. There are a number of such public and private sector input provision projects in the area of training, knowledge and certification. Some of these certification projects have been heavily subsidized or entirely financed by donors.

Organizations and companies who had achieved 'Fair Trade' and organic certification have only an approximate idea of costs and these are generally confined to the direct costs of setting up appropriate management systems. Of all the enterprises visited in the three island countries, only Solomon Tropical Products (STP) had successfully certified its copra meal as organic without any external assistance. Vanuatu should adopt and use the STP model given the similarities in business structures, operations and target beneficiaries in Solomon Island and Vanuatu.

Attempts were made at all interviews to approximate costs of compliance to market certification with incomplete success.

## 2.6.2 Producers and private sector

Presently there is a high demand for food testing services in the meat packing industry, particularly Vanuatu Abattoirs Limited, as reported below.

## 2.6.3 Vanuatu Abattoirs Limited

VAL has been progressively attempting to access the EU market for its prime cut beef for a number of years. The management has been pro-actively managing this process. As part of the EU compliance programme, the following activities are underway;

- VAL and VQIS have been developing a residue testing programme for Vanuatu which has been implemented over the past three years. This programme covers pesticide, hormone, heavy metal and antibiotic testing and was funded by the EU (TOR VAM/0513/01/FM National Meat Residue Testing Programme, Phase 1). The estimated cost of this programme is US$24,000.
- Upgrades to the fabric of the abattoir, operational procedures and microbiological testing and results
- There is provision for upgrades in anticipation of the EU inspection results, especially with regard to sealing of the access road and improvements to waste disposal arrangements. Road construction is expected to cost US$ 45,000 (or five million Vatu). Capital investment in the abattoir may require an additional $45,000. These are costs beyond the financial capacity of VAL to finance, let alone sustain.

[81] Weightman, B., 1989. *Agriculture in Vanuatu: a historical review*, Grosvner Press.

The EU agreed to fund the road-sealing programme if necessary. In fact the EU has been very supportive of the market access programme at VAL through funding via the Centre for the Development of Enterprises (CDE). The main issues experienced by VAL as been the lack of continuity in terms of EU support, perhaps due to EU staff turn-over.

Several farmers and VAL have attained internationally recognized organic certification with the support of the Government of New Zealand through the certification agency, Agriquality and Foodsafety of New Zealand.

# 3. CONCLUSIONS

## 3.1 Introduction

Countries have objectives related to human health, environmental protection, and agricultural productivity in which trading standards play a key role. In meeting these standards primary producers, processors and traders who do not meet national, international and commercial standards may endanger consumers or fail to gain access to a market. The findings of this study are that such sanitary and phytosanitary issues have been a significant export barrier for Vanuatu in recent years, especially into Australia and the EU. Of all Pacific economies, the EU ban on kava from 2001 has probably affected Vanuatu the most. In addition Vanuatu has also had trouble exporting beef to New Caledonia, and obtaining EU compliance in meat processing facilities. The issue for New Caledonia may, however, be primarily a quota and duty issue. On the other hand, Vanuatu has had assistance from some donors, in particular the EU and New Zealand, in the area of export certification.

For low income countries the challenge is to diversify trade into higher value or value-added primary agricultural, food and manufactured products in terms of compliance with food safety, agricultural health, environmental, and other standards applied by governments and private sector buyers. National and private sector capacity to meet commercial quality requirements as well as comply with national importing country standards are seen as essential for participation in international food trade. However, in many developing countries the culture of quality is not well developed and there are only limited capacities to manage the food, agricultural and environmental risks seen as important in international trade. The aim of the current UNCTAD mission to Vanuatu has been undertaken to assess the effects of SPS/TBT on trade patterns and to ensure that the most pressing and significant SPS management issues identified could be given particular attention where these relate to plant and animal health and food safety.

The primary purposes of those consultations were to examine national SPS management issues within the broader set of competitiveness constraints facing Vanuatu exports, and to outline a selected set of capacity building and strategic issues that could be practically addressed by STDF or other donor programmes in the very near term. The conclusions provide a brief summary of the recent assessment and recommendations with the purpose of highlighting specific recommendations with a view to developing pertinent projects. These build on the underlying issues and descriptions of institutional and other responsibilities in the previous sections of this report and appendices.

## 3.2 Structure of conclusions

These are structured as follows: SPS management concerns and constraints are put in a proper context by examining recent patterns in Vanuatu's agricultural and food trade and categorizing or classifying the nature of trade standards and the relative significance of different types of constraints.

- rational for SPS prioritization
- plant and animal health
- food safety
- diagnostic laboratory testing
- market determined and environmental constraints such as 'organic' and 'fair trade'

These are discussed in relation to their relative importance in terms of current trade and some attempt is made to determine future value of resolving these constraints. The final section then proposes measures in which these constraints can be removed or addressed. A series of annexes provide more detailed coverage of certain topics and an attempt is made to determine the cost of resolving these constraints.

## 3.3 Rational for conclusions

Currently there are a number of entrepreneurs within Vanuatu who with targeted inputs and short term help in the form of technologists and auditing companies have achieved the required market standards relatively easily. This has been in the absence of many of the 'essential' inputs to certification such as a certified local food and water laboratory and certifying agency. To put the conclusions of this report in perspective reference is made to a synthesis study prepared by the World Bank.[82] The report identifies the dominant responses of countries with regard to capacity building. This is shown in the priorities often identified in questionnaires submitted by countries to the World Trade Organization's SPS Committee. A significant amount of the attention of developing country–donor interaction has been concentrated at the top parts of the pyramid, covering laboratory facilities, equipment, technical assistance and equipment for surveillance systems, and training in negotiating skills (Fig. 2).

There is no doubt that these capacities need strengthening in many instances. However the effectiveness of such capacities depends to a large extent on the strength of the lower and mid-level functions, in the pyramid. Without real underpinning, the return on investment in laboratories and participation in international standards-setting meetings of Codex, IPPC, and OIE is significantly lower. Not only that but enterprises whose aim is profit related have been very efficient at achieving technical and market compliance in even the poorest of countries.

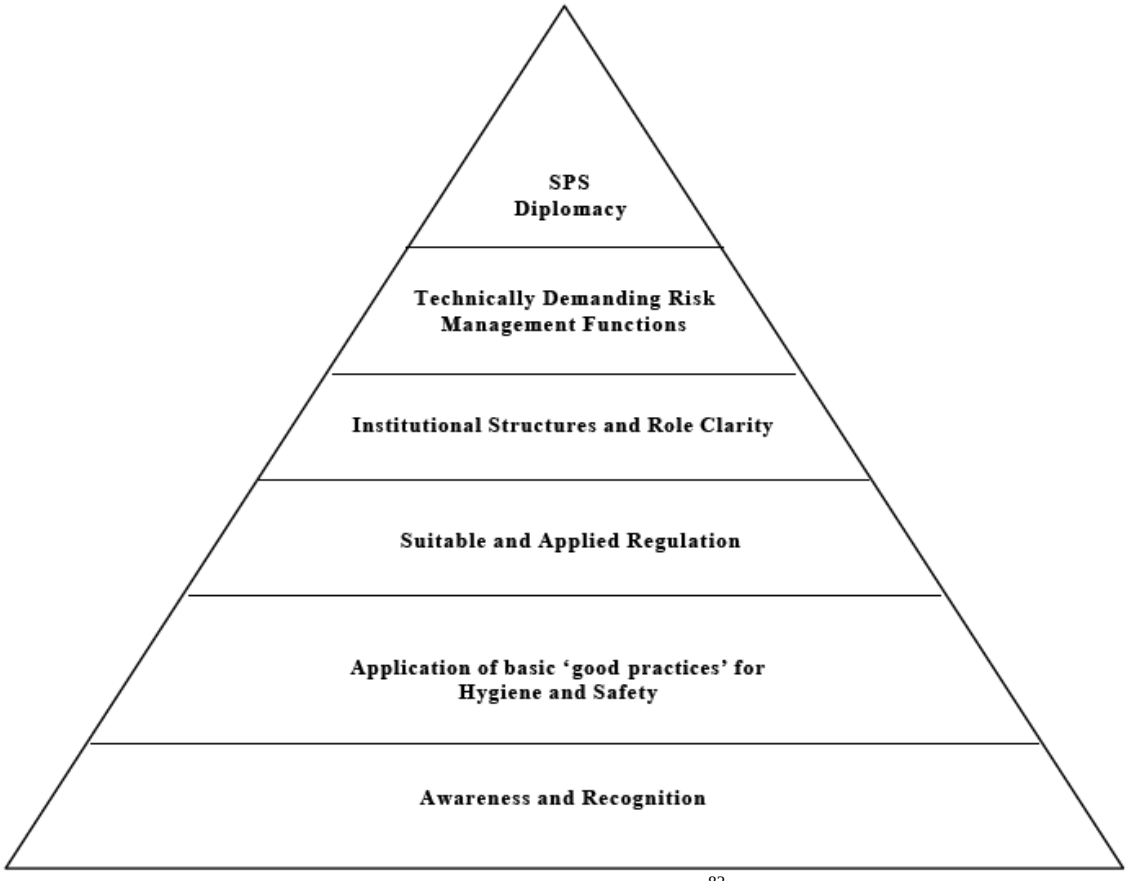



Figure 2: Hierarchy of Trade-Related SPS Management Functions [83]

In practical terms Table 34 sets out a proposed list of priorities for Vanuatu starting with the introduction of industry agreed standards, in line with EU requirements, and an inspectorate to record compliance as required.

[82] World Bank, 2005. *Food Safety and Agricultural Health Standards: Challenges and Opportunities for Developing Country Exports*, Poverty Reduction and Economic Management Unit and Agriculture and Rural Development Department, (Report No. 31207), Washington D.C.

[83] Reproduced with permission of the World Bank.

**Table 34. Priority setting for food safety and agricultural health standards**

| Rank | Action |
|---|---|
| 1 | Apply GAP, GMP, HACCP, and QM at farm, fishing vessel and enterprise levels |
| | Inspect and provide license to food establishments |
| 2 | Establish and maintain identity of products (e.g. traceability) |
| 3 | Develop appropriate legislation and standards |
| | Register and control feed, agro-chemicals, veterinary drugs, etc. |
| | Develop and maintain pest or disease-free areas |
| | Verify and certify biological materials (seeds; embryos, semen) |
| | Verify and certify agrifood imports and exports for risks |
| | Report possible hazards to treaty and trading partners |
| 4 | Conduct basic research, diagnosis, and analysis |
| | Accredit laboratories and veterinarians and other third party entities for official duties |
| | Develop and apply quarantine procedures, including for emergency situations |
| | Carry out epidemiological surveillance and information management |
| | Test products for residues, contaminants and microbiological content |
| 5 | Notify WTO and trading partners on new SPS measures |
| 6 | Participate in international standard-setting processes |

## 3.4 Trade and standards

Historically, Vanuatu has had a significant trade deficit in visible goods as an exporter of commodities an importer of fuel, pharmaceuticals, white goods specialist foods, and cement. In terms of food imports Vanuatu has a trade surplus. Food imports are dominated by specialist items such as rice, chicken wings, processed fish and wheat flour for which domestic production, for various reasons, cannot meet local demand. In 2004 for example Vanuatu's agricultural and food exports, including timber, totalled US$29.7 million (3,293 million Vatu), while food imports totalled $7.2 million (802 million Vatu). Vanuatu's agricultural and food exports are dominated by copra, coconut oil, kava, beef, cocoa, timber and kava.

For its traditional commercial commodities, Vanuatu's market access and trade performance has largely been conditioned by international price trends and preferential market access terms though these are becoming less important with multilateral and regional trade liberalization. For many of Vanuatu's agricultural and food exports, market access and performance have also been affected by the ability of supply chains, and the Vanuatu Government, to comply with either official or private requirements related to food safety, plant and animal health, and environmental management.

Table 35 provides an overview of some of the pertinent requirements associated with Vanuatu's agricultural and food exports. At least for trade with developed countries (or with trade with countries that are themselves significant agricultural exporters), considerably more attention has been given in recent years to managing food safety and agricultural health risks. This attention has been especially strong in relation to the trade of fish, live animals, meat and other animal products, fruits and vegetables. In some countries and some market segments, official regulations have been supplemented by private protocols or 'codes of practice' as well as certifications for organic and 'fair trade' production methods.

**Table 35. SPS and environmental standards potentially applied to Vanuatu agricultural and food exports**

| *Product Group* | *Food Safety Standards* | *Animal and Plant Health Requirements* | *Environmental Requirements* |
|---|---|---|---|
| **Traditional Exports** | | | |
| Copra | Foreign matter and contaminants limits | | |
| Coconut oil | Microbiological standards, free fatty acids | | Codes for organic practices and 'fair trade' certification |
| Coconut meal | Foreign matter and contaminants limits | | Codes for organic practices |
| Cocoa | Pesticide residue standards<br>Mycotoxin tolerance levels | | Codes for organic practices and 'fair trade' certification |
| Live Animals and Meat Products | Vet. drug residue limits<br>Microbiological standards | Disease-free areas<br>Disease surveillance<br>Restrictions on veterinary drugs<br>Animal traceability | Codes for organic practices and certification<br>Regulations on animal waste effluent |
| Hides and Skins | | Animal health status for raw hides and skins | Water effluent regulations<br>Chemical use restrictions |
| Kava | Human health concerns | | |
| Coffee | Microbiological standards<br>Mycotoxin tolerance levels | Fumigation requirements | Codes for organic practices and 'fair trade' certification<br>Codes for 'shade grown' |
| Prawns | Microbiological standards, and fish processing factory requirements | | |
| Trochus | | | Sustainability |
| Giant clams | | | Sustainability |
| Green snail | | | Sustainability |
| Bêche-de-mer | | | Sustainability |
| Lobster | Microbiological and mercury | | Sustainability |
| Shark fin | | | Sustainability |
| Aquatrade | | | Sustainability and competition with eco-tourism |
| **Non-Traditional Exports** | | | |
| Fresh Fruits and Vegetables | Pesticide residue limits<br>Microbiological standards<br>Produce traceability requirements<br>Pack house hygiene requirements | Plant material quarantine<br>Pest risk analysis<br>HTFA treatment requirements<br>phytosanitary certificates | Pesticide use restrictions<br>Water and soil contamination regulations. Codes for organic practices and 'fair trade' certification |
| Fish | Microbiological and mercury standards, fishing boat and fish processing factory requirements | | Sustainability, water and soil contamination regulations |

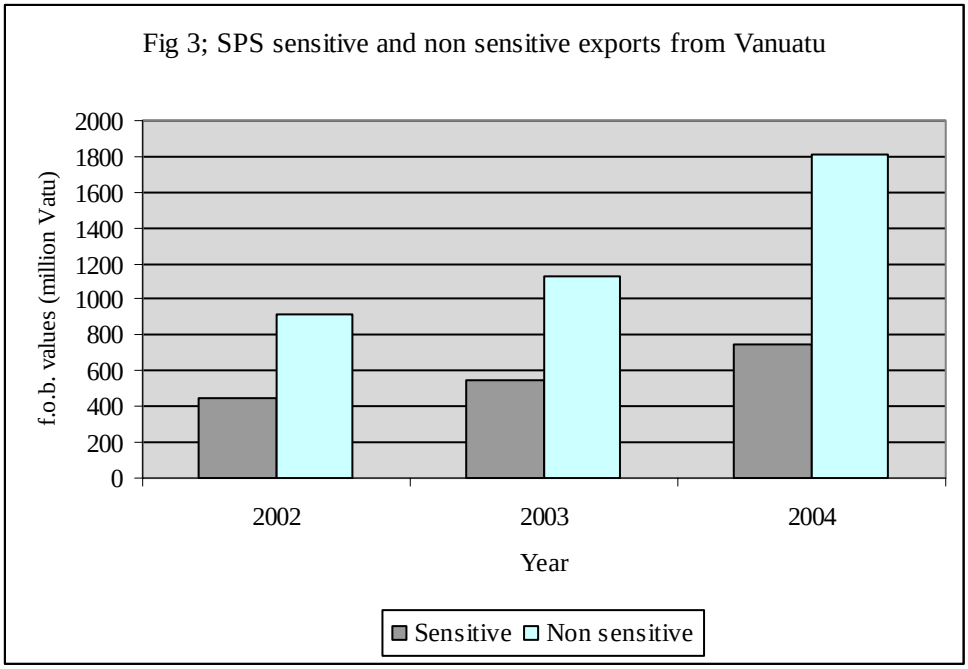
It is important to recognize that there are wide differences in the enforcement of such requirements in different markets as well as varying degrees of difficulty in complying with these requirements. Vanuatu's agricultural and food trade is directed to neighboring countries, and to a range of other developed (EU, Australia and New Zealand) and developing countries. SPS and environmental standards continue to have little or no effect on Vanuatu's agricultural and food trade within the region. The primary exception to this relates to Vanuatu's recent trade dispute trade with Fiji though the primary reasons for this were not SPS driven. Vanuatu has experienced periodic SPS-related problems in its trade of selected products (noni and kava) with Europe, although, again, SPS measures have, for most exports, generally not been a binding constraint in the sense that there are solutions

to the problems. Given the overall composition and direction of Vanuatu's agricultural and food trade, and based on a review of past experience, one can conclude that the SPS measures of the country's trading partners have had a measurable impact on the overall performance of this trade.

However, other competitiveness factors including primary producer and processor productivity, continuity and reliability of supply, logistical costs and macroeconomic factors as well as international commodity price trends, have played much more dominant roles in explaining Vanuatu's agricultural and food trade performance.

For example, in recent years, Vanuatu has experienced impressive growth in its exports of copra, copra meal, coconut oil and kava. With the partial exception of kava, trade in these commodities is largely governed by price, quality, and logistical considerations with minimal impact of SPS measures. Vanuatu's recent trade in more-SPS sensitive products, particularly beef, has been relatively flat due mainly to supply chain problems and not because of SPS issues although the kava ban in the EU has had some impact. New or more stringent SPS measures adopted by Vanuatu's trading partners have not had a profound impact on recent trends. Fig 3 compares recent growth in trade of commodities for which SPS measures are of little importance versus trade in the range of products for which food safety and/or agricultural health concerns might apply. Trade in many of the latter mix of products has not performed as well as the former in recent years, although SPS-related factors have generally not necessarily been the most significant factor in contributing to this performance.

Fig 3; SPS sensitive and non sensitive exports from Vanuatu




Much of Vanuatu's food processing industry is not internationally or regionally competitive. Its processed food exports are targeted at New Zealand and Australia where there is a growing population of Pacific Islander's living in both countries. In these markets, the prevailing official and private standards are similar to those in Vanuatu and where phytosanitary issues have been largely addressed. Vanuatu's food trade with more SPS-observant countries is less than Euro €10 million, and, in recent years, this has been declining. This consists of copra, coconut oil and cocoa to the EU. Some SPS-related challenges have and are being faced, but these are not the cause of the recent trade declines.

Vanuatu imports a broad range of foods, although considerable parts of this are of products which would be considered of low to moderate risk from a food safety point of view. This situation may change if Vanuatu signs up to new trade deals with the EU and Australia and New Zealand in the near future (EU Economic Partnership Agreement is due to be signed in 2007, which is expected to trigger PACER negotiations with Australia and New Zealand) as the amount of imported foods will rise as import tariffs are lowered. The imports of foods for which there might be health risks (i.e. dairy products, fish, and canned foods) tend to come from countries where relatively high standards of food safety controls apply. Vanuatu's trade faces relatively few plant health constraints and those that it does are not, or should not be binding (Table 36).

**Table 36. Current agricultural and food trade and SPS risks (in millions Vatu)**

| | Export Value | Plant Health | Animal Health | Food Safety |
|---|---|---|---|---|
| Copra* | 126 | | | |
| Coconut oil* | 733 | | | |
| Coconut meal | 117 | | | |
| Cocoa* | 181 | X | | |
| Live animals and meat products | 286 | | | XX |
| Hides and Skins | 28 | | X | |
| Kava | 477 | | | XX |
| Coffee | 0 | | | |
| Trochus | 30 | | | |
| Aquatrade | 10 | | | |
| Fresh fruits and vegetables | 28 | X | | X |
| Processed fruit and vegetables | 10 | | | X |
| X Moderate Risk XX Higher Risk | | | | |

Note: Data is from 2004 except where otherwise indicated

The two specific instances of high SPS risk identified in Table 36 are beef and kava exports. To put the issue in the context of overall exports a summary of the importance of the two items is shown in Table 37. This shows that beef and kava, between them, account for about 30 per cent of Vanuatu's visible exports. While supply of animals has been a problem for the meat packing establishments a reasonable case may be made for the significant impact of the perceived human issues with kava being responsible, in part, for the relatively poor performance of SPS sensitive exports. These have declined as a share of total exports over the period 2002 – 2004 (Fig. 3).

**Table 37. Export value of Vanuatu agricultural and food trade and SPS risks 2004-2005 (in millions)**

| *Category* | *Vatu* | *US$* |
|---|---|---|
| Total food + agriculture | 2,026 | 18.3 |
| Total food | 1,715 | 15.5 |
| Food + agriculture trade with minimal SPS risk | 1,016 | 9.2 |
| Food and agriculture trade with moderate or higher SPS risks | 1,000 | 9.0 |
| Plant health-related* | 209 | 1.9 |
| Animal health-related* | 28 | 0.3 |
| Food safety-related* | 801 | 7.2 |

Note: The three categories add up to more than the total as some products are associated with more than one category of risk.

### 3.4.1 Beef

Periodic interest has been raised about the prospects for contributing to the large beef import demand of the EU. Basic supply capability constraints exist, although the interest exhibited by the industry and donor community to explore the feasibility of this trade, including compliance with animal health, food safety (i.e. residue testing programme, abattoir standards) and certification to organic requirements. Currently, domestic prices for beef in Vanuatu are attractive but the value to VAL could be considerable as indicated in Table 38 below which summarizes the business case for requesting EU access. VAL has secured a market in Norway for prime cut beef. Although Norway is not an EU-member country, its meat import regulations are harmonized with those of the EU. The f.o.b. price differential offered in the Norway market would be 30 per cent better than that in the local or New Zealand or Australian markets. Additionally local demand is for veal whereas Norway specifically requires prime cut which fits in well with the type of cattle delivered for processing.

**Table 38. Benefits of European Union access for Vanuatu Abattoirs (US$)**

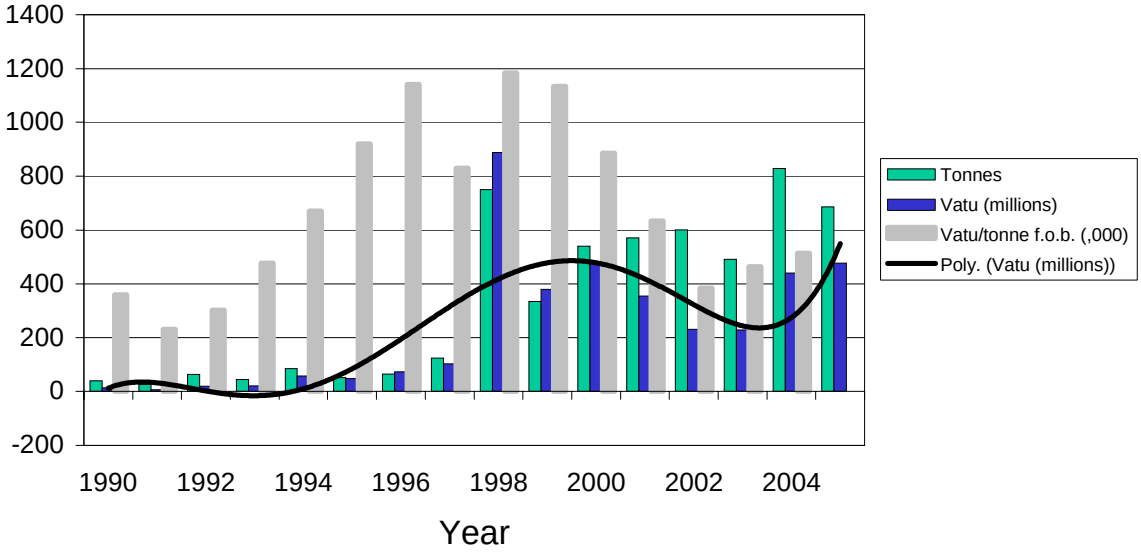
| *Item* | *Destination Markets* | |
|---|---|---|
| | *Vanuatu (local)* | *European Union (external)* |
| Sales prices | 3.76 | 4.89 |
| Kg per day | 13,200 | 6,600 |
| Extra income (day) | - | 7,444 |
| Extra income year | - | 1,875,789 |

In essence the market could be worth a potential of an additional US$1.87 million in revenues for VAL (alone) annually. These calculations may exaggerate the benefits so an alternative assumption is used for calculating national benefit of EU access based on data from the National Statistics Office. This would give a figure of US$0.44 million assuming the same price differential and that half of total exports were diverted to Norway and the EU.

### 3.4.2 Kava

An attempt has been made to estimate the impact of the kava ban on the Vanuatu economy. Export sales of kava from the country dropped between 2002 and 2003 by 110 tonnes. Assuming that this drop was entirely accounted for by lost sales to the EU and that these would have remained constant in volume terms this would have been worth US$ 685,000 (or 76 million vatu) in 2005 prices. This amount alone is almost enough to account for the relative decline in SPS sensitive exports from Vanuatu in the period 2002 - 2004 (Fig 4). This is also well illustrated when trade data is displayed graphically (Fig 4) where one can see a significant dip in sales during 2002 when the EU kava ban came into effect.

Fig 4. Kava exports from Vanuatu (1990-2005)




### 3.4.2 Market certification and benefits

In the course of the consultants visit to the three Pacific LDCs a particular theme has been reiterated on a number of occasions. This is in relation to the structure of agricultural production in terms of landholding and agronomic systems. In addition the relatively tiny amounts of land area represented by South Pacific LDCs preclude large scale plantation agriculture[84]. These issues are discussed in detail in a large number of publications and it is not

[84] See for example Bourke, R.M., et al., 2006. "Solomon Islands Smallholder Agriculture Study - Volume 1, Main Findings and Recommendations", AusAID, Canberra, Australia (ISBN 1 920861 68 8ISBN (series) 1 920861 46 7); Fleming, Euan., 2001. "Strategic paths to competitiveness in agriculture in South Pacific island nations"; Lebot, Vincent., 2001. "Export diversification in PICs: The development of non-traditional agricultural products". Both papers were presented at the 'Regional Workshop on the Constraints, Challenges and Prospects for Commodity-based Trade, Development and Diversification in the Pacific Island Countries', Nadi, Fiji Islands 18-20 September 2001; Taporaie, Amos., 2004. "The

necessary to review them here. The specific feature of these systems where market access is an issue lies in the nature of production i.e. family oriented and chemical free. Several organizations and companies have managed to acquire organic and 'Fair Trade' status for their products including beef (Vanuatu), coconut oil (Solomon Islands, Samoa), coconut meal (Solomon Islands), and cocoa (Samoa, Solomon Islands). The estimated 'beneficiation' of the certification for Vanuatu is calculated in Table 39.

**Table 39. Potential beneficiation by market related certification**

| *Niche Market* | *Value - Millions* | | *Premium* | *Benefits - Million* | |
|---|---|---|---|---|---|
| | Vatu | US$ | | Vatu | US$ |
| Organic | 2,0209 | 18.2 | 10% | 203 | 1.8 |
| Fair trade | 1,776 | 15.9 | 15% | 266 | 2.4 |
| Fair trade and organic | 1,776 | 15.9 | 20% | 355 | 3.2 |
| Total beneficiated | 2,109 | 18.9 | 17% | 368 | 3.3 |
| **TOTAL EXPORTS** | 2,642 | 23.7 | 14% | | |

Production of these commodities in the South Pacific will never amount to more than a small percentage of total world supply and therefore it makes sense to develop niche markets for them. Assumptions are that are that all exports of beef, coconut oil, kava, cocoa in Table 27 could be certified organic (probably over optimistic) and that all of these with the exception of beef could get a 'Fair Trade' certification. The estimated benefits to the economy could be in the region of US$3.3 million (or 368 million vatu). A more realistic aim of 25 per cent certification might add over US$0.8 million to the value of exports. This sort of beneficiation has already been seen for example in the POPECA cocoa scheme.

## 3.5 Options towards removing trade related SPS constraints

### 3.5 1 Legislation

An assessment was carried out of the Vanuatu legislation, institutional structures and capacities, and recent experiences in relation to phytosanitary management based on several interviews with relevant government officials and the private sector an analysis of trade related SPS issues and some recent issues.[85] The operating constraints and on-going performance of Vanuatu's national plant protection organization, VQIS, in relation to trading partners does not form a barrier to the current or planned exports.

There are planned inputs by the Pacific Islands Forum Secretariat as well as assistance from New Zealand and Australia to ensuring that Vanuatu's phytosanitary laws remain in conformity with IPPC guidelines though activities have yet to start and may some time to get under way. Major current issues are export restrictions of kava to Australia, requirements for wood packaging and market access restrictions to Australia for ginger. The kava issue may relate to (possibly genuine) concerns in Australia on the effect of kava on health of native Australians. Outside of this issue VQIS has been able to address trading partner concerns such that exports of products with potential plant health and food safety (beef) risks are relatively unaffected.

VQIS and VAL have jointly embarked on a CDE (EU) funded programme to gain entry into Norway for prime cut beef from Vanuatu. This is in addition to the current microbiological monitoring required under the Food (Control) Act No 21 of 1993 and the New Zealand and Australian import regulations. This programme has successfully introduced a national residue monitoring programme for Vanuatu beef and is progressing into the next phase of inspection and certification from the EU.

The conclusion is that there is no action necessary in addition to those already underway for VQIS.

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coconut industry in the Pacific island countries: Dying, Dead or Alive? " Paper presented at the 'Workshop on the development of senile coconut palmwood into high quality, value-added products in selected PICs', Nadi, Fiji Islands 22-23 September 2004.

[85] For example, WTO/Pacific Islands Forum Secretariat, Regional workshop on technical barriers to trade, Tanoa International Hotel, Nadi, Fiji, 28 – 30 June 2006, Draft Outcomes.

### 3.5.2 Food safety systems

An assessment was carried out of the underlying regulatory framework for food safety, the associated institutional arrangements and capacities for food safety monitoring and inspection. Those enterprises visited by the consultant involved in food related exports were also assessed in terms of awareness and application of appropriate health and hygiene measures.

The main findings of this review are that The Food (Control) Act No 21 of 1993 together with proposed regulations, The Food (Control) Regulations of 2006, are generally acceptable but need some review in detail. The proposed new regulations have been commented upon by various affected stakeholders. They include a requirement for training for all food handlers which, if enforced, should have the effect of raising hygiene standards in Vanuatu. Administration of the regulations is by MoH and local municipalities. Underlying capacity to monitor and enforce the existing food laws is probably adequate given the total number of establishments requiring inspection. However, there is a reasonable level of awareness and application of food safety and good manufacturing practices within key industries such as VAL.

### 3.5.3 Laboratory testing review and recommendations

An assessment was carried out of the laboratories that are serving the agricultural and food sectors in Vanuatu. The consultant visited many of the existing laboratories, both publicly and privately owned. Interviews were also undertaken with some food processing companies to gauge their testing needs and current approaches to meet those needs. Selected points are summarized here.

The main findings are:

- Limited commercial demand for testing services.
- Lack of coordination or clear division of roles and responsibilities e.g. there are three institutions carrying out water testing creating redundancy and competition for scarce human and financial resources.
- Severe capacity weaknesses in most public sector laboratories and better performance in the private sector. In one instance a private sector company provides a laboratory on its own premises for use by government inspectors who do not have the facilities at their own Ministry.

There is a perception among some government representatives that the weak capacity of public sector laboratories constrains Vanuatu's trade. This view is not generally shared by the private sector which has come to rely upon its own testing capacities or has the needed tests undertaken abroad.

The option to partially privatize or out-source some anlyses, particularly that of water, is suggested as there is already considerable capacity at Unelco (Suez). This would be cheaper than having a separate public laboratory. In addition Unelco (Suez) can develop strong linkages with other institutions, companies, and trade associations inside and outside of Vanuatu and participate in inter-laboratory testing and training. The vision of a national food laboratory system for Vanuatu is certainly possible but there is no need for it as yet.

Rather than try to resurrect the FTDC as a food testing centre it should be developed as a co-ordination body to develop pro-active approaches to trade related SPS. This is partially the case at present as it is the Codex contact point for Vanuatu. However it could co-ordinate in the short to medium term the contribution by Vanuatu to kava research being carried out regionally. Currently the FTDC is under the Department of Trade, but it would be logical to move it to the Ministry of Agriculture while still retaining links to the Ministries responsible for Health and Trade.

## 3.6 Reinforcement of private sector capacity to implement quality standards

### 3.6.1 Kava

Research into resolving the human health question overhanging the use of kava in the EU has been underway for several years. Vanuatu is in a good position to help in the research effort as there are many more high quality kava cultivars in Vanuatu compared to Fiji other regional suppliers.[86] VQIS is leading agent that is driving the

[86] Lobby On International Kava Standards, Friday: May 26, 2006, (Port Vila Presse/PacNews) available online at http://www.news.vu/en/business/Agriculture/060524-Vanuatu-will-head-lobby-on-international-kava-standards.shtml

introduction of Codex rules on kava products for export. A committee is being set up to write a draft on standards, guidelines, codes of practice and recommendations on kava and improve the quality and the infrastructure in rural area.

Vanuatu should be leading the way on kava there is more variation in the crop on the islands than in other parts of the Pacific. Therefore a specific proposal for an integrated programme on kava research as part of a regional project was developed (see Appendix 11) and integrated as an integral part of the STDF grant project proposal for kava (in Vanuatu).[87]

### 3.6.2 Beef

The Vanuatu beef industry, as a public and private sector partnership, has been very pro-active in sourcing funding EU and other aid for market access work and has already been embarked on resolving this issue for several years. It seems likely that funding will continue.

### 3.6.3 Market related certification

A start has been made in this direction by Kakoa and the POPECA funded project. Reinforcement of these kinds of interventions would be a needed input to expand on these initiatives.

For example the following priorities were agreed as a way forward at a meeting in the Solomon Islands;

- Establish a professional organization for value added (i.e. 'market' certified value adding such as organic and Fair Trade) to interact with government and NGOs.
- Fund the training of farmers on elementary hygiene and the essentials of good agricultural practice
- Acquire material and equipment necessary for implementation of quality and safety systems
- Establish a local agency subcontracted to an accredited certification company for affordable certification
- Create a fund supervised by a forum comprised of both public and private actors whereby funds could be allocated according to certain criteria.

Specific proposals are made with the specific aim at applying trade related technical aid to where it would do most good. This is at the micro i.e. enterprise level, in the form of a fund. It was proposed to set this up under the joint trusteeship of the Government, the export sector (agriculture and fisheries) in the form of an industry organization and an NGO agreed on by the other two parties.

Applications are then invited from established businesses and other entities for funds where;

- The business is a going concern in the sense that it is already operational, has a clear supply chain, and export market.
- There is a clear market need for spending on compliance (upgrading plant, machinery, certification, quality control equipment, training, etc.)
- Non statutory requirements which will enhance social and economic objectives through better prices should be considered (e.g. 'Fair Trade' certification).
- Where it is agreed that enhancing a government or other public function (such as inspection services or a targeted hygiene awareness programme) will add value to the exporter.

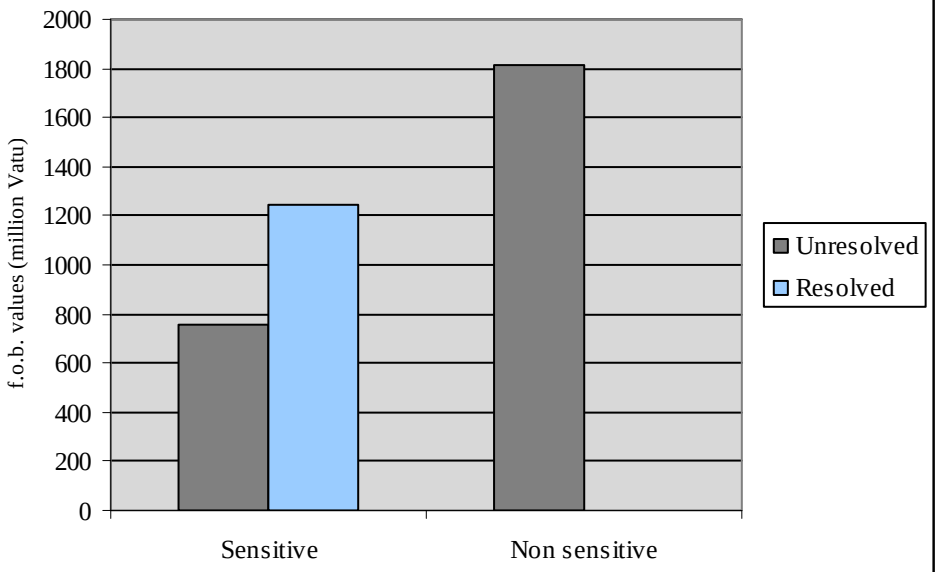
This list is not exhaustive but serves to illustrate the sorts of issues that are at the bottom of the pyramid where trickle down funds are often inadequate or costly. Depending on the borrowing entity the funds could be disbursed in the form of a grant or, ideally as a concessional loan so as to increase the effectiveness of the initial funding. This proposal would in effect leave the decisions to those on the ground and also allow for unforeseen market opportunities that may present themselves in the future. A final point is that the exploitation of new market opportunities and efficient use of money are most often found in the private sector and it is only fair that they should have a say in how government can best help.

[87] This should include an epidemiological study on the effects of kava drinking on human health. However this falls outside the strict competencies of the consultant and should be the subject of a regional application for WHO/WTO funding after specialist TA input.

## 3.7 Effect on trade and economic sectors of proposed interventions

This concluding section pulls together the proposals outlined above in order to summarize the effect these would have on the economy of Vanuatu. Implementation of all three proposed interventions (beef, kava and, organic and Fair Trade using 2004 export data) could have the effect on exports shown in Fig. 5. This would effectively bring SPS sensitive exports more in line with the growth experienced by non-SPS sensitive exports.

Fig 4: Resolution and value adding of SPS sensitive exports from Vanuatu




One must bear in mind however that some of the effect calculated are to interventions in non-SPS sensitive exports such as coconut meal. Using varying definitions of SPS sensitive exports and two estimates of GDP for 2005, Table 40 provides a perspective in percentage terms of the effect on the national economy of the proposals outlined above. This gives a starting point of between five and eight per cent of the economy (in GDP terms) being targeted by the interventions. The actual numbers in Table 40 are less important than the relative values.

**Table 40. Effect on Vanuatu GDP of SPS interventions ( per cent)**

| | | |
|---|---|---|
| Contribution to GDP value SPS sensitive exports | 5 | 8 |
| Kava to the European Union | 0.18 | 0.29 |
| Organic and Fair Trade (OFT) | 0.22 | 0.35 |
| Beef to the European Union | 0.12 | 0.19 |
| Contribution to GDP | 0.5 | 0.8 |

The two points that should be emphasized in relation to Table 40 are that the beef issues are already being addressed by VAL and AQIS through EU funding and that the benefits of the kava and O/FT interventions could be potentially greater than that of the existing beef programme and would certainly benefit the poorer and least advantaged sectors of the farming community.

## 3.8 Building strategic alliances

The final issue to cover is that of relevance of the consultant's findings to that of an Integrated Framework and the guiding principles of cooperation that should determine the relationship between;

- the IF and the Joint Integrated Technical Assistance Programme, (JITAP), and
- the IF and the STDF

These are based on the principles quoted at the beginning of the (country) section of this report. The information analysis in the case of the conclusions for Vanuatu is specifically aimed at achieving;

> "*the overarching goal of reducing poverty and transactions cost will be reduced, as a common body of diagnostic studies will be available to everyone*"[88]

The intention of this study and the accompanying STDF application is to translate the IF principle into clearly thought out market access strategies together with concrete projects to take the first steps in achieving them. The intention and structure of both the report and STDF application is that subsequent projects and analyses can build on and refine this work.

[88] UNCTAD, 2005. *Integrated Framework (IF) for Trade-Related Technical Assistance for Least Developed Countries*, United Nations, New York and Geneva.

# MAJOR RECOMMENDATIONS

Fruits and vegetables, Port Vila, Vanuatu

# International level

### *Effective participation in standards-setting organization*

The International community, in particular standards-setting organizations need to provide space and flexibility for the three focus countries to **establish networks** between national and regional food-safety regulatory authorities, particularly at national or country level.

Ensure **full and effective participation** of the Samoa, Solomon Islands, and Vanuatu is in setting globally relevant standards, such as Codex.

Samoa, Solomon Island, and Vanuatu are members of the Codex Alimentarius Commission, whilst only two: Samoa and Solomon Islands are signatories to the International Plant Protection Convention (IPPC). In keeping with its motto, the Codex Commission should work towards:

> "… greater efficiency and effectiveness in the development of Codex standards, whilst maintaining transparency and inclusiveness and procedural consistency in the process of their development."

Codex Commission and other key international organizations should facilitate and support the domestic efforts of the three Pacific LDCs to **access resources** available under the 'New' FAO and WHO Trust Fund - operated by the STDF - to not only increase their capacity - through training - to participation effectively in Codex Commission meetings (regional and international), but also strengthen national Codex Committees and reinforce the participation of the health sector in standard-setting activities related to food in order to promote and protect consumer's health throughout the food chain.

### *Agrifood certification and food control systems*

Market access and trade expansion for majority of the agrifood exports from Samoa, Solomon Islands, and Vanuatu are conditioned largely by market exigencies, especially price oscillations due to supply and demand shifts in the world commodity markets. On the domestic front, the problem is two-fold: supply-side inefficiencies and the inability of the public and private sectors to comply with rules and regulations and technical standards pertaining to food safety, plant and animal health, and environmental management.

Until domestic food safety control and management protocols and, institutional capacity and infrastructure are revamped and improved, producers and exporters in these islands countries will continue to rely on external assistance - principally from Australia and New Zealand - **agrifood certification and food safety control and management standards** (e.g. Codex, HACCP, BRC, EurepGap, ISO 22000).

### *UNCTAD, and WTO-Standards and Trade Development Facility*

A more proactive and coordinated approach is required between UNCTAD and the three focus countries and other development partners to solicit financial and technical assistance from the **STDF** - within the framework of the SPS Committee of the WTO - and finance the projects lodged with the SPS Committee by way of STDF grant applications. Other development agencies (e.g. DfID, AusAID, NZAid, and the EU) are also called upon to increase financial and technical resources to implement projects and programmes in the Pacific region.

The process, if successful, would serve as a template to generate additional resources to implement similar, if not, more comprehensive technical assistance programmes in other developing countries, including PICs Each country study has its detailed, country-specific conclusions and recommendations. This section, however, draws together a list of selected major recommendations stemming from the individual country studies. These are grouped into three categories: national, regional, and international, for workability.

### *Accreditation of national laboratories*

Revamp the capacity of **national laboratories** to internationally accredited levels so that they are equipped to verify product quality of exports and imports, and evaluate various parameters (e.g. analysis of minimum levels of pesticide residue). International accreditation ensures national results of the analysis to be recognized world-

wide. Without accreditation, the Ministry of Health cannot prove the safety of the food consumed locally, and the Ministry of Agriculture cannot justify the issuance of phytosanitary certificates.

### *Supply-enhancing capacities - infrastructure*

Upgrade supply-enhancing capacities including physical infrastructure, for example, laboratories, communication equipment, and construct and upgrade border inspection services.

## Regional level

### *Information, surveillance and alert systems*

Establish i**nformation, surveillance and alert systems** to monitor pests, diseases and pesticide residues, and outbreaks of food borne diseases and food borne contaminations.

Early warning and surveillance systems enable countries to detect problems in time so that food borne diseases and contaminants are prevented from spreading along the food chain.

The three focus countries neither have in place such systems nor the capacity to collate, tabulate, publish and disseminate information on pests.

Substantial resources are needed to acquire testing equipment and communication systems, train staff in modern phytosanitary issues, and develop pest and disease databases and distribution schemes.

### *Training, information access, and review of regional organizations*

Focus-countries are resources-strapped constrained and are unable to undertake major **training and capacity-building programmes** of their personnel, both in the public and private sector. Therefore, it is imperative that regional and sub-regional organizations located in the Pacific region to shed some of this load, especially in the area of food safety control and quality management systems.[89]

In addition, access to updated information is fundamental. Key information on international market exigencies - price oscillations, supply and demand situations, market requirements and development, changes in importing country legislations, laws and technical regulations (e.g. EU pesticide legislation).

Regional and sub-regional organizations should review their policies and strategies to strengthen the capacity in standard-setting for food safety and of nutrition information in collaboration with parent organizations such as the FAO and WHO.

[89] The key regional and sub-regional organizations in the region are; Pacific Forum Secretariat and South Pacific Commission, both located in Suva, Fiji, and the FAO sub-regional office, Apia, Samoa.

# National level

Many agrifood safety standards and quality requirements imposed in markets of export interest to the three Pacific LDCs necessitates public sector intervention, in particular, policy analysis, legislation, and regulatory framework. Three key institutions - names may differ - are responsible for **food safety control and management systems**, and quarantine inspections services are; (i) Standard-setting organization, responsible for standards elaboration and accreditation; (ii) Ministry of Agriculture, responsible for phytosanitary issues and quarantine inspection; and (iii) Ministry of Health, responsible for ensuring the food safety.

At the national level, the following [major] public sector interventions are necessary.

## *National legislation and food safety control*

Establish **food safety control and management systems** (FSCMS) which would assist the focus-countries' adhere to standards, and laws and technical regulations imposed 'at and behind' borders.

To make the FSCMS operational and effective, the prerequisite is to *revise* and *update* the **national food safety-related legislation** to; (i) establish risk-based food control system; a technical requirement of the WTO SPS Agreement, and (ii) harmonize national legislation's with internationally or regionally accepted standards (e.g. WTO SPS Agreement, Codex Alimentarius, IPPC) or importing-country laws and technical regulations (e.g. integrating EU's 'farm to fork' requirements).

Presently, food safety-related legislations in Solomon Islands and Vanuatu are being reviewed.

## *Standards, export certification, and quarantine inspection services*

Create **standards-setting organization's** to develop suitable tropical standards, which helps address the heterogeneous nature of production and processing systems, wide-ranging varieties of products, and vastly different agro-climatic conditions in PICs. Investment of substantial resources - public and private - is required to promote such standards, and implement systems that monitor and evaluate conformity.

Strengthen **import inspection** and **export certification services** to shorten delays 'at and behind' borders which often result from lengthy quarantine inspection procedures; reduce post-harvest loss, product recall and loss of income, and loss of market share. Increased financial and technical resources are necessary to revamp the capacities of key agencies and government departments. For example, train quarantine inspectors so that they are able to accurately issue phytosanitary certificates that adhere to SPS requirements of importing countries.

Testing equipment, effective communication systems, trained personnel, and upgrade of quarantine and incineration facilities are paramount to comply with import and export controls.

# APPENDICES

Taro (*Colocasia esculenta* ), Port Vila, Vanuatu

## Appendix 1 Selected European Union regulations and fisheries information portal

This appendix reviews the current status of the EU Fisheries regulations and standards applied in the EU market. Its fisheries portal provides a wealth of information for those involved in fisheries exports. The fisheries portal (see Fig. 1) is available at:

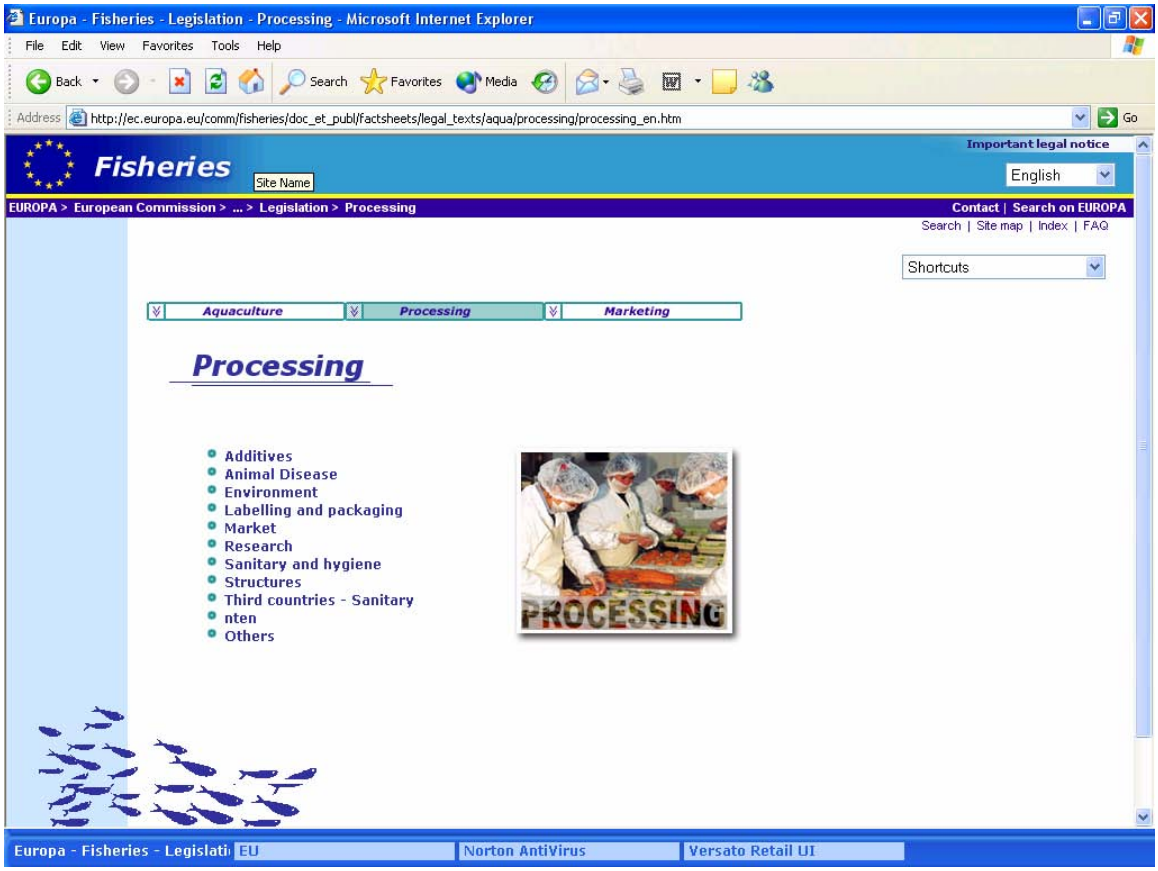



Figure 2 EU portal on fisheries legislation and regulations

Listed below are selected downloadable Directives that regulate catching, processing and marketing of fish in the EU market.

| EU Directive Ref. | Remarks |
|---|---|
| Official Journal L 175, 19/07/1993 P. 0001 – 0011 | Council Directive 93/43/EEC of 14 June 1993 on the hygiene of foodstuffs |
| Official Journal L 024, 30/01/1998 P. 0031 - 0032 | Council Directive 97/79/EC of 18 December 1997 amending Directives 71/118/EEC, 72/462/EEC, 85/73/EEC, 91/67/EEC, 91/492/EEC, 91/493/EEC, 92/45/EEC and 92/118/EEC as regards the organization of veterinary checks on products entering the Community from third countries |
| Official Journal L 056, 09/03/1993 P. 0042 – 0042 | 93/140/EEC: Commission Decision of 19 January 1993 laying down the detailed rules relating to the visual inspection for the purpose of detecting parasites in fishery products |
| Official Journal L 187, 07/07/1992 P. 0041 – 0044 | Council Directive 92/48/EEC of 16 June 1992 laying down the minimum hygiene rules applicable to fishery products caught on board certain vessels in accordance with Article 3 (1) (a) (i) of Directive 91/493/EEC |
| Official Journal L 156, 23/06/1994 P. 0050 – 0057 | 94/356/EC: Commission Decision of 20 May 1994 laying down detailed rules for the application of Council Directive 91/493/EEC, as regards own health checks on fishery products (Text with EEA relevance) |
| Official Journal L 268, 24/09/1991 P. 0015 – 0034 | Council Directive 91/493/EEC of 22 July 1991 laying down the health conditions for the production and the placing on the market of fishery products |
| Official Journal L 332, 30/12/1995 P. 0040 - 0041 | Council Directive 95/71/EC of 22 December 1995 amending the Annex to Directive 91/493/EEC laying down the health conditions for the production and the placing on the market of fishery products |
| Official Journal L 268, 24/09/1991 P. 0015 – 0034 | Council Directive 91/493/EEC of 22 July 1991 laying down the health conditions for the production and the placing on the market of fishery products |
| Official Journal L 332, 30/12/1995 P. 0040 - 0041 | Council Directive 95/71/EC of 22 December 1995 amending the Annex to Directive 91/493/EEC laying down the health conditions for the production and the placing on the market of fishery products |
| Official Journal L 024, 30/01/1998 P. 0031 - 0032 | Council Directive 97/79/EC of 18 December 1997 amending Directives 71/118/EEC, 72/462/EEC, 85/73/EEC, 91/67/EEC, 91/492/EEC, 91/493/EEC, 92/45/EEC and 92/118/EEC as regards the organization of veterinary checks on products entering the Community from third countries |
| Official Journal L 097, 29/04/1995 P. 0084 - 0087 | 95/149/EC: Commission Decision of 8 March 1995 fixing the total volatile basic nitrogen (TVB-N) limit values for certain categories of fishery products and specifying the analysis methods to be used |
| Official Journal L 077, 16/03/2001 P. 0014 - 0021 | Commission Directive 2001/22/EC of 8 March 2001 laying down the sampling methods and the methods of analysis for the official control of the levels of lead, cadmium, mercury and 3-MCPD in foodstuffs (Text with EEA relevance.) |
| Official Journal L 145, 11/06/1988 P. 0035 – 0037 | Council Directive 88/320/EEC of 9 June 1988 on the inspection and verification of GLP |
| Official Journal L 077 , 23/03/1999 P. 0022 – 0033 | Commission Directive 1999/12/EC of 8 March 1999 adapting to technical progress for the second time the Annex to Council Directive 88/320/EEC on the inspection and verification of GLP (Text with EEA relevance) |
| Council Regulation (EEC) No 2081/92 of 14 July 1992 on the protection of geographical indications and designations of origin for agricultural products | This Regulation lays down rules on the protection of designations of origin and geographical indications of agricultural products intended for human consumption and certain foodstuffs. It describes the criteria for eligibility as well as the procedures to obtain the protected designation. |

| | |
|---|---|
| and foodstuffs | |
| Directive 2000/13/EC of the European Parliament and of the Council of 20 March 2000 on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs | It concerns the labelling of foodstuffs to be delivered as such to the ultimate consumer or intended for supply to restaurants, hospitals, canteens, etc. It deals with aspects relating to the presentation and advertising. In particular, it refers to the name under which the product is sold, the list and quantity of ingredients, the date of durability, special storage conditions, the name and address of the manufacturer, packager or seller, particulars of the place of origin and instructions for use. The Directive does not apply to products for export outside the Community. It repeals Directive 79/112/EEC. |
| Council Directive 89/109/EEC of 21 December 1988 on the approximation of the laws of the Member States relating to materials and articles intended to come into contact with foodstuffs | It states that materials and articles which are intended to come into contact with foodstuffs must be manufactured in compliance with good manufacturing practices in order to avoid endangering human health or deteriorating the quality of the foodstuffs. It includes a list of groups of materials and articles covered by specific directives and the health criteria to be applied in the specific directives. It also defines the labelling requirements. |

For more information see EU website: http://ec.europa.eu/fisheries/legislation/basic_en.htm

## Appendix 2 Key points of UK legislation and retailer's codes of practice

Below is the 'most influential' piece of UK food legislation that potential trading partners should know and understand in order to trade with the UK in food and food products.

### 1. Sections 20 and 21 of the United Kingdom Food Safety Act 1990 (c. 16), and extracts of other relevant legislation [90]

*Defences etc.*

Offences due to fault of another person.

**20**. Where the commission by any person of an offence under any of the preceding provisions of this Part is due to an act or default of some other person, that other person shall be guilty of the offence; and a person may be charged with and convicted of the offence by virtue of this section whether or not proceedings are taken against the first-mentioned person.

Defence of due diligence.

**21**.—(1) In any proceedings for an offence under any of the preceding provisions of this Part (in this section referred to as "the relevant provision"), it shall, subject to subsection (5) below, be a defence for the person charged to prove that he took all reasonable precautions and exercised all due diligence to avoid the commission of the offence by himself or by a person under his control.

(2) Without prejudice to the generality of subsection (1) above, a person charged with an offence under section 8, 14 or 15 above who neither—

(a) prepared the food in respect of which the offence is alleged to have been committed; nor

(b) imported it into Great Britain, shall be taken to have established the defence provided by that subsection if he satisfies the requirements of subsection (3) or (4) below.

(3) A person satisfies the requirements of this subsection if he proves—

(a) that the commission of the offence was due to an act or default of another person who was not under his control, or to reliance on information supplied by such a person;

(b) that he carried out all such checks of the food in question as were reasonable in all the circumstances, or that it was reasonable in all the circumstances for him to rely on checks carried out by the person who supplied the food to him; and

(c) that he did not know and had no reason to suspect at the time of the commission of the alleged offence that his act or omission would amount to an offence under the relevant provision.

(4) A person satisfies the requirements of this subsection if he proves—

(a) that the commission of the offence was due to an act or default of another person who was not under his control, or to reliance on information supplied by such a person;

(b) that the sale or intended sale of which the alleged offence consisted was not a sale or intended sale under his name or mark; and

(c) that he did not know, and could not reasonably have been expected to know, at the time of the commission of the alleged offence that his act or omission would amount to an offence under the relevant provision.

(5) If in any case the defence provided by subsection (1) above involves the allegation that the commission of the offence was due to an act or default of another person, or to reliance on information supplied by another person, the person charged shall not, without leave of the court, be entitled to rely on that defence unless—

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[90] The UK Food legislation is available online at**:**
http://www.opsi.gov.uk/ACTS/acts1990/Ukpga_19900016_en_3.htm#mdiv20

(a) at least seven clear days before the hearing; and

(b) where he has previously appeared before a court in connection with the alleged offence, within one month of his first such appearance,

he has served on the prosecutor a notice in writing giving such information identifying or assisting in the identification of that other person as was then in his possession.

(6) In subsection (5) above any reference to appearing before a court shall be construed as including a reference to being brought before a court.

## Other Provisions of the Food Safety Act 1990

1.1 All goods supplied must comply with the Food Safety Act 1990 (hereinafter referred to as the "Act" for the purpose of this Clause 1). In particular, the goods must:

Comply with the Food Safety Requirement as defined in Section 8 and have not been rendered injurious to health within the meaning of Section 7.

Comply with all regulations and orders made by or under, or having effect under the Act.

Not to be falsely describe or likely to mislead as to their nature, substance of quality.

Not to be subject of a notice issued under Section 9 or an emergency control order issued under Section 13.

The supplier must not be the subject of any Improvement Notice served under Section 11, or any emergency Prohibition Notice or Order served under Section 12.

The Foods Safety (General Food Hygiene) Regulations (1995) require food businesses to undertake a hazard analysis programme, such as HACCP. It is recommended that the scope of the HACCP be extended to on farm operations that impinge on food safety, including pesticide management.

## Food and Environment Protection Act 1985

All goods supplied must comply with the Food and Environment Protection Act 1985 (hereinafter referred to as the "Act" for the purpose of Clause 2). In particular the supplier must ensure:

That the level of any pesticide residue shall not exceed the maximum residue laid down for that pesticide.

That no product containing in excess of the permitted MRL shall be put into circulation.

## Consumer Protection Act 1987

The goods supplied must comply with the Consumer Protection Act (hereinafter referred to as the "Act" for the purpose of this Clause 2). In particular, the supplier must ensure that the goods:-

Do not contain any defects as defined in Section 3, Part 1 of the Act.

Are subject of any suspension notice, prohibition notice, notice to warn or order off forfeiture pursuant to the Act.

Have been and will continue to be tested by the supplier in order to ascertain their compliance with the General Safety Requirements or relevant Safety Regulations.

## Weights and Measures Act 1985

The goods supplied must comply with the provisions of the weights and measures Act 1985 (hereinafter referred to as the "Act" for the purpose of this Clause 3). In particular, the supplier must ensure that the goods:

Conform to any quantity statement marked on any container.

In respect of packaged goods as defined in Part V of the Act, the supplier must ensure that all duties imposed on it by the Act, have been performed.

4.1.3 All such goods comply with any relevant Weights and Measures Regulations made by the Secretary of State in force at the time of supply.

### Trade Descriptions Act 1968

5.1 The goods supplied must comply with the Trade Description Act 1968 (hereinafter referred to the "Act" for the purpose of this Clause 4). In particular the supplier must ensure that:-

All descriptions applied to the goods are accurate and are not likely to mislead.

The goods comply with any Regulations made by or under the Act.

### Other Regulations

The supplier must further ensure that the goods comply with all other relevant statutes and regulations, and specifically the General Product Safety Regulations 1994 (S.I. 1994 No. 2328), as may be applicable from time to time.

## 2. British Retail Consortium (BRC)

With the introduction of the UK Food Safety Act in 1990, the statutory 'due diligence' defense became the main driver to formalize the process of food premise inspection by UK retailers. Under this legislation, it was no longer acceptable for a retailer to rely on a 'warranty' defense, if legal proceedings were presented. Under section 21 of the Food Safety Act there is provision for a general defense of "all reasonable precautions and all due diligence" against principal offenses in the Act i.e.:

"... it shall be a defense for the person charged to prove that he took all reasonable precautions and exercised all due diligence to avoid the commission of the offense by himself or by a person under his control"

The responsibility for the safety and legality of product was now shared between supplier and the retailer, with emphasis for the retailer being placed on five main areas of control namely:

- To ensure the presence of a detailed specification, which is legal and consistent with any compositional standards or good manufacturing practices.
- To ensure that they satisfy themselves that a supplier is competent to produce the specified product and complies with legal requirements and operates systems of production control in accordance with good manufacturing or agricultural practices
- From time to time, make visits, where practical to verify the competence of the supplier or receive the result of any other of the suppliers system for that purpose.
- Establish a risk assessed programme for product examination, testing or analysis
- To monitor and act upon customer complaints

Management review carried out by a number of the major UK retailers in the mid 1900s, led to a move toward third party auditing. The BRC Global Standard was developed in October 1998 with the aim of eliminating multiple audits by retailer technical and third party technical representatives of food manufacturers supplying the UK retailer with own brand products.

Since the first issue of the BRC Global Standard; Food, in 1998, it has been revised on two occasions with Issue 3 being published in April 2002. The standard was developed under the leadership of the BRC and its members and has gained significant international recognition for its content, format and supporting system.

The main sections of the standards are;

- HACCP system

- Quality Management System (QMS)
- Factory Environment standards
- Product Control
- Process control
- Personnel

The BRC is a single standard and protocol, allowing evaluation to be carried out by Certification Bodies, who are accredited against the European standard EN45011 (ISO/IEC Guide 65). Single verification is all that is required and it addresses the due diligence requirements of both supplier and the retailer. As Certification Bodies are accredited against a European standard, there can be recognition of accredited Certification Bodies in countries where product is sourced.

There are also a number of benefits in relation to the Certification Body accreditation scheme (based on EN450011 or ISO Guide 65), which supports the BRC Standard.

More information is available on BRC's webpage: http://www.brc.org.uk/defaultnew.asp

## 3. United Kingdom Register of Organic Standards (UKROFS)

The mission of UKROFS is to ensure that produce grown and sold in the United Kingdom as "organic" conforms to the standards established by UKROFS in implementing EU legislation. UKROFS does this by accrediting, and supervising the work of, private sector organic certification bodies and by authorizing the importation of organic produce from countries outside the EU. UKROFS deal with all stakeholders in the production of organic food including consumers, retailers, wholesalers, importers and others in the distribution chain, farmers, growers and processors of food and agricultural products to be sold as organic, certifiers of organic products as well as UK the Department of Environment, Food and Rural Affairs (DEFRA).

***Structure***

UKROFS consists of a Board appointed by Secretary of State at the Department of Environment, Food and Rural Affairs in consultation with the devolved administrations. To assist it in its work, the Board has appointed Committees dealing with certification, research and development, and technical issues. Members of these Committees, each of which is chaired by a member of the Board of UKROFS, are drawn widely from relevant interests. The Board is assisted by a Secretariat provided by the Department of Environment, Food and Rural Affairs.

***Duties of the Board***

The Board monitors and approves the work of the organic certifying bodies and to take any action necessary to ensure that the bodies are implementing correctly the requirements of the EC legislation, the UKROFS organic standards, and control manual. It accredits new certifying bodies which meet the appropriate requirements; and if necessary to suspend or withdraw approval from any accredited certifying body found in breach of the requirements. Formulation of standards for the production of organic products in the UK is in accordance with the requirements of the appropriate legislation, in particular Council Regulation (EEC) 2092/91.

Anyone wanting to grow or process food to be sold as organic in UK markets must, by UK law, be registered with UKROFS or a body approved by UKROFS and is inspected by them at least once a year. The same applies to those importing organic food from outside the EC and in practice to South Africa. The UKROFS-approved bodies operate privately but are all subject to inspection by UKROFS to ensure that their systems and the standards of their inspections conform to the EC Regulation and UKROFS Standards. UKROFS also carries out direct check inspections on farmers and processors registered with the sector bodies as an additional assurance that organic standards are being complied with.

There are also strict production standards. For many years, there have been codes for organic farming prepared by voluntary bodies and applied by their members. In 1993, however, a European Community regulation became affective. This describes the inputs and practices which may be used in organic farming and growing, and the inspection system, which must be put into place to ensure this. The regulation also applies to processing aids and ingredients in organic foods. So, all food sold as organic must come from growers, processors or importers who are registered and subject to regular inspection. In the United Kingdom, the United Kingdom Register of organic food standards — UKROFS, administers the regulation. UKROFS consists of an independent board appointed by agriculture Ministers, which is assisted by a small secretariat, provided by the Ministry of Agriculture, Fisheries and Food. Its job is to ensure that the EC Regulation is properly administered in the UK by various bodies, which register organic farmers and processors.

The EC Regulation also operates throughout the whole European Community, so you can trust organic imported food. Organic food produced under the Regulation may be freely sold within the EC, so you may see the names or symbols of the certifying bodies from other Community countries. A limited number of countries outside the EC are currently recognized as having an equivalent system. Organic food from those countries may also be freely sold. For other countries, the importer must demonstrate to UKROFS (or similar body in another EC country) that the food is genuinely produced to an equivalent standard and inspection system before it can be sold as organic.

The rules that govern the labelling of organic foods come from the EC Regulations. They are designed to ensure that consumers are not misled. In the case of a product in a natural state such as potatoes, the rules are simple: potatoes may be described as organic only if they have been grown by a registered producer of organic foods. You might see on the label "organically grown potatoes". Though not legally required there may also be a brief description of organic farming and perhaps the logo of the inspection body concerned and the address of the grower or packer.

The EC Regulation currently provides rules for the production of all organic foods. Community standards for animal production are being developed and until these are in place national standards, such as those of UKROFS in the UK, must be used. These regulations aim to keep livestock in good health by promoting high standards of animal welfare, appropriate diets and good day-to-day care of stock. If animals are ill, the farmer must give appropriate treatment. Antibiotics and other conventional medicines are used under veterinary advice and only when no alternative treatment is available or where necessary to save an animal's life or to reduce suffering. In such cases no product from the animal concerned may be sold as organic for period from the last use of the medicine which in most cases is twice as long as the normal "withdrawal period" for that medicine.

More information is available on DEFRA's webpage:
http://www.defra.gov.uk/farm/organic/standards/acos/ukrofs/index.htm

## Appendix 3 FFA/SPC diagnostic mission to the Samoa Competent Authority

Following an appraisal by the DevFish Project (Development of Tuna Fisheries in ACP Pacific Countries) implemented by the FFA and Secretariat to the Pacific Community (SPC), the consultant to the DevFish project, Mr. Steve Roberts, conducted a diagnostic mission - at the behest of Samoa Fisheries Division, Ministry of Agriculture and Fisheries - to assess the possibility to establish an effective Competent Authority in Samoa to oversee the sanitary production of fishery products and help local exporters access EU markets.

Table A1 summarizes the findings and recommendations of this diagnostic mission.

Table A1; Recommendations of the diagnostic mission regarding the development of tuna fisheries in the Pacific ACP countries - DevFish Project

| Recommendation | Subsidiary activities | Action |
|---|---|---|
| 1 | | MAF to reinvigorate effort in relation to National Food Safety Programme |
| 2 | Task 1 | Review proposed new Samoan legislation in respect of equivalency to EU requirements |
| | Task 2 | Review application dossier submitted to EU DG-SANCO (appears to have been lost) |
| 3 | | Submit a completely new application to EU from head of MAF if needed |
| 4 | Task 3 | SSVB to update Management System Document plus bring in TA expert on sampling and analysis to set up a suitable system |
| | Task 4 | Start submitting regular routine activity reports to DG-SANCO |
| 5 | | Start the routine of quarterly reports by SSVB to FVO office in Ireland |
| | Task 5 | Identify laboratories overseas for product testing and estimate costs |
| 6 | | Conduct chemical testing trial with IAS-USP to determine suitability of laboratory |
| | Task 6 | Look at possibility of establishing accredited seafood testing laboratory in Samoa |
| 7 | | DevFish look at TA to help develop local microbiological testing laboratory including plan and costs |
| | Task 7 | Look at other constraints and follow-up actions e.g. HR issues |
| 8 | | Look at participation by other arms of Government to participate in SSVB e.g. Ministry of Health |
| 9 | | Training of SSVB AVO's in food safety refresher courses |
| 10 | | Purchase of basic inspection equipment for the SSVB |
| 11 | | Inspection programme for vessels to meet EU requirements together with TA and EU assistance to vessel owners to help with compliance |

Source: Steve Roberts, June 2006. 'Development of tuna fisheries in the Pacific ACP countries Project', Diagnostic Mission to the Samoa Competent Authority Ruling the Sanitary Production of Fishery Products.

## Appendix 4 Pest database for PICs

South Pacific Community (SPC) launches on-line information system; Pacific Islands Pest List Database (PIPLD), to facilitate agricultural trade of PICs to overseas markets.[91]

The information system is a landmark development that allows importing countries instant access to Pacific Islands' pest lists – a necessary first step to begin trade in specific agri-food commodities.[92] For example, supposing France wants to import noni from Samoa, it goes on-line and lookup Samoa's pest list to start trade negotiations. Similarly, if Fiji quarantine wanted to import coconuts from Tonga, it contacts Tonga quarantine and asks them for their pest list of coconuts. Tonga quarantine compiles the information and sends them to Fiji. The whole process would take a couple of days, if not, more. The information can be downloaded and printed off anywhere in the world, however it is read-only copy.

Significantly, a pest list is a requirement under the International Plant Protection Convention (IPPC) which is a multilateral treaty deposited with the Director-General of FAO. The IPPC convention seeks international cooperation in controlling pests of plants and plant products and in preventing their international spread, and especially their introduction into endangered areas.

A pest list is also required under obligations of the WTO SPS Agreement. The SPS Agreement identifies the IPPC as the organization providing international standards to help ensure that measures implemented by governments to protect plant health (phytosanitary measures) are harmonized and not used as unjustified barriers to trade.

The PIPLD has many more useful functions besides facilitating trade. It can also provide a list of host plants for a given pest, which is a requirement necessary to carry out the Import Risk Analysis, another trade facilitation procedure.

EU, AusAID and NZAID support the project.

For more information, contact:

Emil Adams, Land Resources Division, SPC Regional Office, Suva, Fiji Islands

[91] See http://www.spc.int/AC/Land/landnews.htm

[92] A pest list database is an information system to store records of pests that are currently known to affect agriculture, forestry and the environment in PICs. The project has assisted Samoa, Tonga, Niue, French Polynesia, Fiji Islands, American Samoa, Cook Islands, Vanuatu, New Caledonia, Solomon Islands, Papua New Guinea, Federated States of Micronesia (FSM), Palau and Marshall Islands develop their country pest lists.

## Appendix 5 Virgin coconut oil [93]

The Solomon Islands together with other small and isolated economies of the South Pacific needs to look at novel ways of beneficiating commodity products at source. Not only that, but also the methods of beneficiating should allow isolated communities within the countries to benefit directly from such trade opportunities. One such product is virgin coconut oil (VCO). Kokonut Pacific (Australia) Pty Ltd in a joint venture with Prosolutions (Ltd) is developing one such approach. The joint venture is called Kokonut Pacific Solomon Islands (KPSI)

### 1. The process

Kokonut Pacific (Australia) Pty Ltd (KPA) has developed a technology termed Direct Micro Expelling (DME) for the production of virgin coconut oil. This DME process by-passes the task of copra making allowing the production of VCO within one hour of opening the coconut. The coconuts are finely grated while still fresh, dried on a stainless steel plate dryer and the oil pressed out with a manual press. DME units installed by KPA can process up to 500 coconuts a day. At present 14 DME units have been installed in three provinces: Malaita, San Cristobel, and Santa Isabel with warehousing and bulk storage in the port area of Honiara on Guadalcanal Island.

The women in business development incorporated (WIB) have been using this technology in Samoa since 1997 when they set up the Pure Coconut Oil Company in 1997 to act as a nucleus services centre. This offered a market for the DME oil together with a number of value added products. The coconut producers are contracted to sell 70 per cent of their oil to the company but most sell 100 per cent in practice. WIB has expanded the project to include organic training and full organic certification.[94]

### 2. The product

The product is a natural cold pressed, 100 per cent pure virgin coconut oil that tastes like fresh coconut. It is raw and unrefined and free of water with a free fatty acid (FFA) or rancidity value level of 0.2 per cent. By way of comparison, crude coconut oil produced from copra is traded with a FFA of three to four per cent and has to be chemically refined, bleached and deodorized before it can be used for human consumption.

DME extra virgin coconut oil complies fully with the WHO/FAO Codex Alimentarius standard 124-1981 for edible coconut oil, revision 1 (1989); CAS No. 8001-31-8 and the New Zealand Ministry of Health Microbiological Reference Criteria for Food, October 1995. Basic quality control tests to verify that these standards are met are carried out by KPSI in Honiara. Tests demanding more sophisticated equipment and certified testing facilities and test methods are carried out in Australia.

### 3. Certification

*Organic*

Organic certification has been issued to 255 growers (May 2006) covering 2,500 hectares delivering to 14 DME units. This certification is accredited by Australian organic body, National Association of Sustainable Agriculture in Australia (NASSA) which is also cross accredited with international organic (IFOAM) accreditation.

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[93] Presentation to Asia-Pacific Forum for Environment and Development (APFED) entitled; 'Rehabilitating a rural Economy with virgin coconut oil production', Colin Dyer and Dan Etherington, May 2006.

[94] Adimaimalaga Tafuna'i, 'The Coconut Oil Project' *Women in Business Development Inc*., Samoa; Case Studies on Commercialization of Small Farmers, FAO Pacific Farm Management and Marketing Series.

## *Fair trade*

KPSI is a foundation member of the fair trade association of Australia and New Zealand which is closely linked with the international fair trade organization FLO. At the present time no criteria have been established for fair trade with coconuts.

FTAANZ is currently working with European groups to establish suitable criteria for fair trade in coconuts.

# Appendix 6 Noni

## 1. Introduction

There is a considerable amount of interest in the PICs in developing new export commodities based on relatively underutilized plant species. Two of these, noni and kava, however encounter technical and standards problems with acceptance into the EU. The stringent food safety assessment for novel foods required by the EU Novel Food Regulation (NFR) (EU Regulation 258/97) places a very high burden of proof on those bringing traditional food products from the PICs to the EU market. The regulation has emerged as a non-tariff barrier for trade in food items that are often derived from under-utilized crops and are viewed as "exotic" from the EU perspective. Current practice of the regulation has discouraged investment in supply chains, and particularly in market development. Research and development agencies concerned with neglected crops and poverty alleviation are still only starting recognize the potential threat, which the regulation poses to income generation in developing countries and poor farmers' livelihoods. Development activities promoting exotic foods must increasingly accommodate legitimate food safety concerns about neglected food species in project design and seek to generate data to enhance regulatory acceptance in target markets.[95]

In the EU, its Novel Food Regulation (NFR – EC No. 258/97) applies if food items have not been used to a significant degree for human consumption within EU before 15 May 1997. Article 1 (2 (e)) of the NFR stipulates that foods produced according to traditional procedures are excluded from the Regulation provided that they have a history of safe food use. The text reads:

Article 1
*(…)*
*2. This Regulation shall apply to the placing on the market within the Community of foods and food ingredients which have not hitherto been used for human consumption to a significant degree within the Community and which fall under the following categories:*
*(…)*
*(e) foods and food ingredients consisting of or isolated from plants and food ingredients isolated from animals, except for foods and food ingredients obtained by traditional propagating or breeding practices and having a history of safe food use;*
*(…).*

In practice the EU has repeatedly rejected traditional exotic foods using this regulation. The objective of the regulation was to protect public health by ensuring food safety. It would seem that the regulation is in fact being used to exclude many exotic traditional foods, which only recently are beginning to make their way into foreign markets. The issue in Article 1 (2 (e)) is the term "history of safe food use" which is not clearly defined in the NFR. It can be interpreted in one way as; a well-documented history that follows scientific criteria including data on toxicity, allergenic potential and other safety issues. Alternatively, it could be interpreted as; referring to traditions based on consumption through time without observable damage or risks. Based on insufficient information on food safety, it can be assumed that the scientific approach to NFR implementation is preferable particularly in the context of Commission Recommendation 97/618/EC on the scientific information and safety assessment reports required for applications which classifies novel foods along the lines of "history of food use in the Community".

Some of the legal terms used in the NFR are not clear and therefore complicate implementation. Some of the questions are:

- Which food is "novel"?
- What is meant by "consumption to a significant degree"?
- What does "equivalent" or "different" in comparison with a conventional food or food ingredient mean in practice?

[95] Michael Hermann, 2004 (June). 'The amendment of the EU Novel Food Regulation: Opportunity for recognizing the special status of exotic traditional foods.' Discussion paper by the *International Plant Genetic Resources Institute* (IPGRI).

This has introduced a subjective interpretation by the EU which, in practice, has denied to several food products derived from underutilized plant species with specific reference to Article 1 (2 (e)). Much of the NFR and complementary texts providing guidance for its implementation address food safety concerns arising in the context of foods derived from, or containing, genetically modified organisms (GMOs) and had these types of organism in mind when designing the regulation, as well as foods with "new […] molecular structure" and those derived from novel processes. The practical application of the regulation has become an obstacle to technical cooperation efforts funded by EU Member State Governments, other nations and private initiatives to promote the commercialization of underutilized plant and animal species for food purposes, with a view to generating income and reducing poverty in rural areas of developing countries. *As a consequence, some of the limited funds available to assist developing countries may be going into activities which are doomed to failure from the very beginning*.

Food categories established in Article 1 of the NFR do not expressly recognize or accommodate traditional foods from outside the EU. By exempting "foods and food ingredients obtained by traditional propagating or breeding practices, and having a history of safe use" (Article 1.2.[e]) the regulation appears to exclude traditional foodstuffs, but the wording is unclear and contradicts current interpretations and practice of the NFR.

In practice the following procedures are used. Anyone wishing to place a food product on the EU market to first evaluate whether the;

- Food is novel and to present evidence to support the case. Novel food needs to satisfy two conditions: 1) it must fall into one of six food categories and 2) it has not been used for human consumption to a significant degree within the EU before 15 May 1997.
- What constitutes "a significant degree" is not specified and is subject to interpretation.
- If the food is viewed as not novel, it may be placed on the market and its assessment under the NFR is not required.
- If the food is viewed as novel, an assessment of the food's safety under the NFR is required and an application can be accepted by the relevant member-State.
- Once submitted to the relevant member State authority, the application takes its course in a process in which the commission, all 15 member States, and advisory bodies intervene at various stages and iterations. The process scrutinizes the novel food against the objectives of the NFR, which is to ensure that it neither presents a danger for the consumer nor that its consumption is nutritionally disadvantageous. The applicant is required to present scientific evidence to support the application
- Member States can and do raise objections against the submitted evidence and applicants may be asked to present evidence to address such objections.
- The average time taken from acceptance of an application to a final decision has been 18-24 months.

A study was commissioned to collect and analyse information about rejected foods derived from underutilized species and, to then provide arguments in favor of improving the practical application of the NFR, launched by the EU discussion paper in July 2002.[96]

However, one product from the South Pacific region has fallen foul of this regulation: noni.

**2. Noni**

The noni (*Morinda citrifolia*) is from the madder (Rubiaceae) family and is known under many different names throughout the Pacific. Noni grows in Polynesia and other parts of Southeast Asia. The tree grows up to 8 metres high with glossy dark green leaves up to 35 cm long. Small white flowers appear out of cluster like buds which grow later into a cream white fruit the size of a potato. The fruit has a bitter taste and a rancid smell when ripe. Its colour turns from green to yellow and white when fully ripe. Fruits have about 40 - 60 seeds, similar shape of apple pits. The fruit is ready for harvest when its colour turns white.

There are many claims for noni juice and has been linked to the synthesis of xeronine in the body. The alkaloid content of the Morinda fruit is thought to be responsible for its therapeutic actions. It would appear from several research studies to have four main benefits:

- direct stimulation of the immune system increasing the production of both B - and T-lymphocytes.
- inhibition of tumour development.

[96] Mück, Otto., 2003 (October). *Trade Barrier NFR*? Underutilized species under the European Union's novel food regulation; commissioned by Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Global Facilitation Unit for Underutilized Species.

- help to regulate cell function and cell regeneration.
- an analgesic for headaches and as a healing agent for open wounds.

To give an idea of the interest generated by noni there are almost 43,000 web sites for this fruit and its products.

By November 2003, only one noni product has been authorized as novel food by the EU, namely a juice of the noni fruit produced by Morinda Inc., a large US based company. Initially, the company's application was rejected, based on a series of specific objections raised by member States and only after the company had produced extensive food safety evidence from compositional, toxicological and allergenicity studies and clarified suggested intake level (30 mL per day), did the EU grant authorization in June 2003. Authorization at the time was limited to this particular product and placing on the market of other noni products required a separate authorization. Not only is the authorization specific to a particular product, it is also directed to the applicant so that a competitor cannot market it, unless equivalent evidence is presented. This practice of the NFR granted Morinda Inc. the position of being sole supplier of noni juice on the EU market. A lot of smaller companies with lesser annual sales could not afford the needed research to seek authorization for their own noni products.

Morinda obtained permission to market noni juice in the EU as a functional food. A request by the German company Pharmos Naturkosmetik und Heilmittel GmbH for permission to market noni capsules based on their equivalence with the juice product was rejected, however, on the grounds that a separate application procedure, including a complete set of data, would be required.

In April 2004 a request was submitted to the UK Competent Authority for an opinion on equivalence of a noni juice ingredient by the Pacific Islands Noni Association (PINA) on equivalence to the to the noni juice produced by Morinda. The Committee agreed that, the composition was similar to the approved product. Also, consumption in the form of pure juice, rather than as a component of juice-based drinks, did not invalidate the comparison. Therefore the committee agreed that noni juice produced by the named producers of PINA were permitted in the EU.

## 3. Conclusion

The development of novel products based on the natural botanical resources of he Pacific Islands have run into various TBTs primarily in the EU. There is a case to be made that the working interpretation of the EU NFR Regulations should be re-interpreted in cases where no additional public health issue exists. There is plenty of additional legislation as the following extract from the committee ruling on noni juice of October 2004 shows;

*'The Committee would like to emphasis that any noni juice products introduced on the market will need to comply with existing EU legislation, including rules on the composition and labelling of fruit juices (2001/112/EEC) and on mycotoxins (Regulation 466/2001).'*

In conclusion, the NFR has emerged as a serious, albeit unintended, non-tariff trade barrier to imports from the developing world into the EU, perhaps the most attractive market for exotic traditional foods.

The market size and potential of traditional exotic foods to generate income for the poor is sometimes said to be overstated but growth rates for exotic traditional foods are high, especially in up-market niches. A clear indication of the growing demand is UNCTAD's Biotrade initiative, which seeks to facilitate access of biodiversity products from developing countries to international markets. In pursuing this goal Biotrade's regional programmes *Biocomercio* (Andes) and *Bolsa Amazonia* (Amazonian countries) place much emphasis on building equitable and environmentally sustainable supply chains that originate in poor, but diversity-rich communities. Not only are poor farmers keepers of much biodiversity, they often also have comparative advantages of production, such as privileged access to seed and appropriate production sites, especially in the case of perennials and species exacting specific agro-ecological conditions.

Non-EU countries have similar but less stringent regulations but assessment of this matter suggests that Japan, USA, New Zealand, Australia and in particular Switzerland are much less stringent than the NFR. This interpretation is also supported by the tendency of traders and exporters to re-orientating their marketing strategies to these markets preferentially. In Switzerland, the "*Bundesamt für Gesundheit*" as the relevant authority has published lists of authorized novel foods ("*Bewilligungen für Neuartige Lebensmittel*") since January 1998[97]. In 2002, 116 novel products were authorized for the Swiss market. Most of these are novel

[97] http://www.bag.admin.ch/verbrau/lebensmi/lmrecht/d/inhaltsverzeichnis_bnl.htm

formulations of traditional ingredients. The registration appears to be straightforward and follow the principle: "if the food is eaten abroad, then there should be no problem with its consumption in Switzerland."

There are suggestions that there be recognition of exotic traditional foods as a separate Novel Food Category.[98] There is mention in the NFR and in the EU July 2002 discussion paper of exotic traditional foods in that they consist of a vast variety of food items and are of growing importance to poor country economies and to the diet diversification desired by EU consumers. In light of the diverse nature of novel foods it is unreasonable to subject them all to a single safety assessment as currently practiced under the NFR. Traditional foods are fundamentally different from GMOs, not only in terms of their long history of safe use, but also in regard of their place in the public domain and no private entity should be granted privileged access to the EU market for authorized products as happened with noni fruit juice.

The NFR places an unreasonably high burden of proof on the innocuousness of products generally regarded as safe (GRAS) outside the EU. Currently applicants are required to present extensive data which even for vastly better researched major foods would be hard to come by. In fact, it is likely that a great deal of European foods would not pass the evidence requirement posed by the NFR:

Hermann (2004) made the following observation;

> "*Having considerable allergenic potential due to the presence of gluten proteins, wheat would probably disqualify for market admission. European's are fortunate to have introduced potatoes in the 16th Century (sic) as today potatoes would certainly be rejected by the NFR on the grounds of hazards posed by glycoalkaloids.*"[99]

[98] Michael Hermann, 2004 (June).
[99] Ibid.

## Appendix 7 University of South Pacific food testing laboratory

The consultant visited the Pacific Forum Secretariat, Suva, Fiji Islands, and discussed prospects for food testing on a regional (as opposed to national) basis. It is apparent the Institute of Applied Sciences at the University of the South Pacific Suva Campus is the front runner to becoming the Centre of Excellence for food testing for the PICs LDCs. It was not possible to visit the laboratory; however, the following response from Professor Bill Aalbersberg puts things in perspective;

> *We have international accreditation for a variety of food and water analyses to ISO 17025 standards by IANZ (International Accreditation New Zealand). The EU Fish Import Facility has also authorized us for testing of histamine and mercury for fish exports to EU.*
>
> *Bill Aalbersberg, Univ. of South Pacific.*

There is a limited case to be made for the development of basic water testing facilities to be established in individual PICs, perhaps associated with the various water provision companies, to carry out a range of tests specifically aimed at water potability testing. These can be backed up regular quality control testing for chlorine and/or oxidative-reductive potential (ORP) of water at the factory. This is because it will be difficult to airfreight water on a regular basis and be confident that the results will reflect the situation at the time of sampling. However, the services provided by the University of South Pacific (as described by Prof. Aalbersberg) could be developed and enhanced further to serve as a basis to launch Pacific regional agrifood (and water) testing facilities.

For more information contact:

Institute of Applied Sciences
The University of the South Pacific
PO Box 1168
Suva, Fiji
Tel: (679) 3212 965
Fax: (679) 3300 373
Webpage: http://www.usp.ac.fj/ias/

## Appendix 8 Soltai structural costs


Soltai Fishing and Processing Ltd
P.O. Box 83 Munda, Solomon Islands Tel: (677) 61012 Fax: (677) 61029
P.O. Box 965 Honiara, Solomon Islands Tel: (677) 21664 Fax (677) 23462

24th July 2006

Mr. Dermot Cassidy
P.O. Box 11218
Silver Lakes, Tshwane 0054
South Africa

Dear Mr. Cassidy,

RE: Barriers to Trade – Least Developed Countries

Thanks for our discussion last Saturday with our Managing Director, Milton Sibisopere on issues that has really affected the least developed countries with regards exporting food product to EU-member Countries.

In the case of Soltai, **our major obstacle is the rehabilitation cost of our facilities to be in compliance with the requirement of EU in particular the compliance to List One Status**. Below are some of the facilities that need to be upgraded or replaced so that we could be accredited exporter for Europe market:

- Replacement of Cold storage facility which will cost the company approximately Euro €3.3 million mainly due to the method of stacking the raw materials (fish);
- Replacement of export wharfs which will cost about Euro €5.0 million due to its present dilapidated condition;
- Upgrading of Cannery machineries and equipment which will cost the company Euro €1.2 million due to condensation and thermostat problem;
- Upgrading of Laboratory equipment and machineries to a tune of about Euro €200,000 to cater for technology changes in testing and analysis;
- Procurement of more baskets/bins for storing raw materials in the cold storage in compliance with the stacking method as compared to bulk storage which will cost more and store less and the value in effect would be about Euro €675,000 for bins and Euro €20,000 per cycle (raw material turn-around);
- Replacement of fish meal plant to cater for all cannery solid waste which will cost about Euro €600,000;
- Replacement of current waste water treatment plant to cater for increase capacity in compliance with sanitary and environmental requirement which is estimated to about Euro €5 million;
- Cost of inspection (audit) borne by the company such as accommodation and food for the entire fieldwork which amounted to about Euro €1,000 per visit;
- Regular pest control treatment on top of the usual practice on all areas/facility that will have an additional cost of about Euro €5,000 per month;
- Cost of changing deck from wooden to either steel or plastic estimated to be around Euro €100,000 for 5 vessels accredited to EU.

We hope that we have outlined most of our constraints that we are still trying to comply in order for the company to be accredited with EU list one status. Certainly, if we could not come up with enough funding for the above major rehabilitation it will have a direct impact on our access to the European Market.

Funding for the capital expenditure for rehabilitation is the main constraints and therefore the company does not need technical advisor or training to effect such a requirement.

Sincerely yours,

**Soltai Fishing and Processing Ltd**

*Original signed*

Alfredo D. Sevillejo, Finance Advisor

# Appendix 9 Citrus export potential from Vanuatu to New Zealand - *Postharvest physiology and logistical review*

## 1. Introduction

Currently a limited amount of citrus is exported from Vanuatu to New Zealand in the period from January to June/July. Vanuatu has an earlier citrus production season than New Zealand and is able to produce pomelos – which cannot be grown in New Zealand. Currently exports are restrained because of the limited air-freight space. This brief guide is written as a review of the technical issues posed by citrus exports from Vanuatu to New Zealand. Four main areas are covered in the review;

- New Zealand quarantine requirements
- Post-harvest physiology of the main commercial citrus species
- Specifications used by a South African supplier, Geest, to a major UK retailer, Marks and Spencer
- Cold store design

The report does not look at marketing or costs of marketing but is intended as a guide for a further study on both topics. It is focused on at the technical feasibility of sea-freight options which will have reduced costs of transport but which will require larger unit shipments and investment and use of cooling and handling facilities both in Vanuatu and New Zealand.

## 2. Quarantine

New Zealand in notification G/SPS/N/NZL/317 by/to the World Trade Organization has granted access to its market for Citrus from Vanuatu of the following species (*Citrus aurantifolia*, *C. grandis*, *C. limon*, *C. paradisi*, *C. reticulata*, *C. reticulata x Citrus paradisi* and *C. sinensis*). In practice this means the early season exports of Marsh and Star Ruby grapefruit (*C. paradisi*), Tahiti limes (*Citrus latifolia* or *Citrus aurantifolia*), oranges (*C. sinensis*) and most of the Vanuatu pumelo season.[100]

Some of these species, notably the pumelo, are recognized by New Zealand as non-host species for fruit fly and are allowed in without requiring HTFA treatment.

## 3. Post harvest physiology

Summary protocols and detailed requirements for the storage of the main commercial citrus species are reflected in Appendix 11(a) and 11(b).

[100] The text pertaining to New Zealand's notification to WTO is available online at http://www.biosecurity.govt.nz/files/sps/transparency/notifications/nzl317-n.pdf

Table 1; Storage life of citrus under optimal conditions and possible sea-freight logistical GANTT

| | Week after harvest | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Oranges | | | | | | | | | | | |
| Easy peel oranges | | | | | | | | | | | |
| Grapefruit | | | | | | | | | | | |
| Limes | | | | | | | | | | | |
| Pumelo | Not known (similar to grapefruit?) | | | | | | | | | | |
| | | | | | | | | | | | |
| | Possible packing, collation, shipping and marketing schedule | | | | | | | | | | |
| Harvest | | | | | | | | | | | |
| Pack | | | | | | | | | | | |
| Collate | | | | | | | | | | | |
| Ship | | | | | | | | | | | |
| Transit | | | | | | | | | | | |
| Distribute/store | | | | | | | | | | | |
| Display | | | | | | | | | | | |

The implications for these from a commercial perspective have been summarized (Table 1). Table 1 shows that with careful planning of picking and packing so that container sized shipments can be collated and co-ordinated with ship departures even a three week transit time will allow enough time for distribution and supermarket display in New Zealand of all citrus species excepting easy peelers.

For most citrus fruit rapid cooling after harvest is recommended. The use of HTFA constitutes a significant physiological abuse of the fruit and therefore good handling is required at all stages in terms of time (as short as possible at each stage from picking to display), care (no rough handling), temperature (cooling to shipping temperature as soon as possible after harvest).

**4. Specifications**

Specifications for three species of citrus are attached (Appendix 4). These standards have been adopted in the UK and it would be a good reference point for Vanuatu exporters to adopt with modifications to suit local conditions and New Zealand market requirements. This is particularly important for early season fruits where the temptation to harvest early is high, thus leading to costly outcomes. In this instance the most important criterion of maturity are brix and brix: acid ratios. Early harvesting will effectively destroy the market.

**5. Cold store design**

There are excellent manuals on cold store design available from the University of California (Davis Campus).

Postharvest Technology Research and Information Center
Department of Pomology
University of California
One Shields Ave.
Davis, CA 95616-8683

Attention: Pam Moyer (E-mail: "Pam Moyer" <pvmoyer@ucdavis.edu>

Note the following;

- Refrigeration units must be adequate to cool down the required quantity of fruit from the HTFA temperature to the required shipping temperature within a few hours
- There must be a plenum wall with the facility for forced air movement through the produce (using tents and fans (see photos below).
- There must be adequate ancillary buildings and equipment to avoid warming up of produce when it is transferred from the cold room to the container.

Figures 1 to 4 illustrate the correct design of a fruit cooling facility. The pictures are from a cold-store used to pre-cool grapes and the pallets in the picture contain kiwifruit but the principle is the same.

Fig. 1; Forced air fans from behind plenum wall

Fig 2; Cooling fan bank at top of plenum wall

Fig 3; Double row of fruit pallets on either side of pelum fan

Fig 4; Air being forced through pallets by suction of fan in plenum wall

## Appendix 9(a) Summary protocol for harvesting, handling, shipping and storage of selected citrus fruits

### 1. GRAPEFRUIT AND PUMELO

| Activity | | Special notes | Time allowed | T ($^{o}$c) |
|---|---|---|---|---|
| 1. Harvest | | Must achieve a minimum juice content and SSC/TA ratio before harvest. Check with customer and keep specification at packhouse/farm | Not Known | Not Known |
| 2. Transport to Packhouse | | Not Known | Not Known | Not Known |
| 3. Packhouse | a. Receipt | Not Known | Not Known | Not Known |
| | b. Sorting | Not Known | Not Known[101] | Not Known[102] |
| | c. Holding/cooling | Move to cold store and cool | Not Known | cool immediately below 10 °C and maintain at 5 to 8 °C |
| 4. Dispatch and transport | | Check that reefer unit is working and at the correct temperature | | maintain at 5 to 8 °C |
| 5. Receipt at customer | | Check that reefer unit is working and at the correct temperature | | maintain at 5 to 8 °C |
| 8. Storage at customer | | | Total storage time from picking to start of display on shop counter not to exceed 6 weeks | maintain at 5 to 8 °C |

[101] Products must be picked and removed from open sun as soon as practicable, and the cooling cycle started within a few hours.
[102] At all stages - after harvest - the temperature must be either maintained or reduced at each stage. It should never be increased at any stage.

## 2. LEMONS

| Activity | | Special notes | Time allowed | T ($^{o}$c) |
|---|---|---|---|---|
| 1. Harvest | | Must achieve a minimum juice content and SSC/TA ratio before harvest. Check with customer and keep specification at packhouse/farm | Not Known | Not Known |
| 2. Transport to Packhouse | | Not Known | Not Known | Not Known |
| 3. Packhouse | a. Receipt | Not Known | Not Known | Not Known |
| | b. Sorting | Not Known | Not Known[103] | Not Known[104] |
| | c. Holding/cooling | Move to cold store and cool | Not Known | cool as soon as possible tp below 10 °C stored between 7 to 12 °C |
| 4. Dispatch and transport | | Check that reefer unit is working and at the correct temperature | | Store between 7 to 12 °C optimum RH is 85 to 95%. |
| 5. Receipt at customer | | Check that reefer unit is working and at the correct temperature | | Store between 7 to 12 °C optimum RH is 85 to 95%. |
| 8. Storage at customer | | | Total storage time from picking to start of display on shop counter not to exceed 6 months | Store between 7 to 12 °C optimum RH is 85 to 95%. |

[103] Products must be picked and removed from open sun as soon as practicable. Since lemons are not as sensitive as grapefruit, they should not be stored for prolonged periods below 10$^{o}$C
[104] At all stages - after harvest - the temperature must be either maintained or reduced. It should never be increased at any stage.

## 3. TAHITI LIMES

| Activity | | Special notes | Time allowed | T ($^{o}$c) |
|---|---|---|---|---|
| 1. Harvest | | a juice content of 42% by volume | Not Known | Not Known |
| 2. Transport to Packhouse | | Not Known | Not Known | Not Known |
| 3. Packhouse | a. Receipt | Not Known | Not Known | Not Known |
| | b. Sorting | Not Known | Not Known[105] | Not Known[106] |
| | c. Holding/cooling | Move to cold store and cool | Not Known | cool as soon as possible to target temperature and then stored at 10 °C with 95% RH |
| 4. Dispatch and transport | | Check that reefer unit is working and at the correct temperature | | stored at 10 °C with 95% RH |
| 5. Receipt at customer | | Check that reefer unit is working and at the correct temperature | | stored at 10 °C with 95% RH |
| 8. Storage at customer | | | Total storage time from picking to start of display on shop counter not to exceed 8 weeks | stored at 10 °C with 95% RH |

[105] Products must be picked and removed from open sun as soon as practicable. Tahiti limes are as sensitive as grapefruit.
[106] At all stages - after harvest - the temperature must be either maintained or reduced at each stage. It must never increase at any stage.

## 4. MANDARINES/TANGERINES

| Activity | | Special notes | Time allowed | T (°c) |
|---|---|---|---|---|
| 1. Harvest | | Mandarins have a set minimum SSC:TA ratio and have at least 50% peel surface color break. Check SSC-TA specifications with customer | Not Known | Not Known |
| 2. Transport to Packhouse | | Not Known | Not Known | Not Known |
| 3. Packhouse | a. Receipt | Not Known | Not Known | Not Known |
| | b. Sorting | Not Known | Not Known[107] | Not Known[108] |
| | c. Holding/cooling | Move to cold store and cool | Not Known | Cool as soon as possible. Store at 5 to 8 °C (41.0 to 46.4 °F) with 95% RH for periods up to 4 weeks |
| 4. Dispatch and transport | | Check that reefer unit is working and at the correct temperature | | cooled and stored at 10 °C with 95% RH |
| 5. Receipt at customer | | Check that reefer unit is working and at the correct temperature | | cooled and stored at 10 °C with 95% RH |
| 8. Storage at customer | | | Total storage time from picking to start of display on shop counter not to exceed 4 weeks | cooled and stored at 10 °C with 95% RH |

[107] Products must be picked and removed from open sun as soon as practicable. Tahiti limes are as sensitive as grapefruit.
[108] At all stages - after harvest - the temperature must be either maintained or reduced. It should never be increased at any stage.

## 5. ORANGE

| Activity | | Special notes | Time allowed | T ($^{o}$c) |
|---|---|---|---|---|
| 1. Harvest | | Not Known | Not Known | Not Known |
| 2. Transport to Packhouse | | Not Known | Not Known | Not Known |
| 3. Packhouse | a. Receipt | Not Known | Not Known | Not Known |
| | b. Sorting | Not Known | Not Known | Not Known |
| | c. Holding/cooling | Move to cold store and cool | Not Known | 3-8°C |
| 4. Dispatch and transport | | Check that reefer unit is working and at the correct temperature | | 3-8°C |
| 5. Receipt at SVF | | Check that reefer unit is working and at the correct temperature | | 3-8°C |
| 8. Storage at SVF | | | Up to 3 months, depending on cultivar, maturity-ripeness stage at harvest and production area. Some cultivars can be kept at 0-1°C | 3-8°C<br>Some cultivars can be kept at 0-1°C |

## Appendix 9(b) Storage temperatures and ethylene production and sensitivity

| Product | Ethylene Production | Ethylene Sensitivity | Optimal storage temp | Response to elevated ethylene levels |
|---|---|---|---|---|
| Apple | VH | H | 0°C | Less crisp, Scalding |
| Avocado | H | H | 6.5°C | Darkening |
| Grapefruit | VL | M | 3°C to 8°C | Mould |
| Grapes | VL | L | -0.5°C to 0°C | Mould |
| Green Melon | H | VH | 7° to 10°C | Soft |
| Kiwifruit | L | VH | 0°C | Decay, faded colours |
| Mangoes | M | H | 9.5°C to 10°C | Spotting, |
| Nectarines | M | H | -0.5°C to 0°C | Decay |
| Orange Melon | VH | H | 2.2°C to 5°C | Soft, Decay |
| Oranges | VL | M | 3°C to 8°C | Odour, sprouting |
| Papaya | H | H | 7°C to 13°C | Mould |
| Passionfruit | VH | M | 10°C | Decay |
| Pears | H | H | -1.5°C to -0.5°C | Decay |
| Pineapple | L | L | 7°C to 13°C | Decay |
| Plums and Prunes | M | H | -0.5°C to 0°C | Decay |
| Sharon fruit | | | 0°C | Decay |
| Strawberries | VL | L | 0 to 0.5°C | Mould |
| Watermelon | VL | H | 10°C to 15°C | Decay, shrink, lose firmness |

Ethylene production rate:

VL = very low

L = low

M = moderate

H = high

VH = very high

Ethylene sensitivity:

VL = very low sensitivity

L = low sensitivity

M = moderately sensitive

H = high sensitive

VH = very high sensitive

**Appendix 9(c) Compatibility to long-term storage temperatures and ethylene production and sensitivity**

| Storage Temp | Group 1 | Group 2 | Group 3 |
|---|---|---|---|
| 0°C | Grapes (VL-L)<br>Nectarines (M-H)<br>Plums and Prunes (M-H)<br>Strawberries (VL-L) | Grapes (VL-L)<br>Apples (H-H)<br>Strawberries (VL-L) | Grapes (VL-L)<br>Kiwi (L-VH)<br>Strawberries (VL-L) |
| 6.5°C | Avocado (H-H)<br>Grapefruit (VL-M)<br>Oranges (VL-M) | Papaya (H-H)<br>Grapefruit (VL-M)<br>Oranges (VL-M) | Grapefruit (VL-M)<br>Oranges (VL-M) |
| 9°C | Pineapple (L-L)<br>Watermelon (VL-H) | Pineapple (L-L)<br>Mango (M-H) | Pineapple (L-L)<br>Passionfruit (H-M) |
| 12°C | Pineapple (L-L)<br>Orange Melon (VH-H) | Pineapple (L-L)<br>Green Melon (H-VH) | Pineapple (L-L)<br>Papaya (H-H) |

## Appendix 9(d) Raw material specifications

| DEFECTS | LEVELS |
|---|---|
| **LIMES** | |
| MATURITY | |
| Fruit must be physiologically mature. | |
| Fruit must have at least 45% juice. | |
| FLAVOUR PROFILE | |
| Must be acidic typical of cultivar | |
| GENERAL PROFILE | |
| Skin penetrating damage (pathological including stem end rots, mechanical, insect). | < 10% |
| Internal physiological disorders (e.g. internal spot, cold damage) | < 10% |
| Brix: 10.2% , Minimum pH 1,2 | |
| Temperature outside 5-10 ºC | 0% |
| Presence of human pathogenic organisms (SVF will be testing for these at SABS) | 0% |
| Size: Min 35 mm | 10% |
| Presence of foreign bodies | 0% |
| Target factory yield | 40% |
| **ORANGES *(Citrus sinensis)*** | |
| APPEARANCE | |
| Fruit Size <65mm in diameter (equatorial) | < 10% |
| FLAVOUR PROFILE | |
| Brix : acid ratio must be between 6:1 and 8:1 | 0% |
| Brix: < $10^{o}$ | 0% |
| Poor / musty / bland / acidic / watery / old<br>Flavour must be typical of cultivar | 0% |
| TEXTURE | |
| Granulation | < 10% |
| Soft fruit present | < 10% |
| GENERAL PROFILE | |
| Arrival Temperature – above 3.0 $^{o}$C or below 10.0 $^{o}$C | 0% |
| Internal and surface penetrating pest damage / deep bacterial blemishes / mould or yeast / rotting fruit / mechanical damage | 0% |
| Physiological disorder / chill damage / poor storage / overloading | 0% |
| Pips - minimal | 3% |
| Foreign body contaminant including soil / stones / chemicals | 0% |
| Standard yield | 35% |

| **3. GRAPEFRUIT (*Citrus paradisi*)** | |
|---|---|
| APPEARANCE | |
| Fruit Size >75mm in diameter (equatorial) / <110mm | |
| FLAVOUR PROFILE | |
| Sugar : acid ratio 7:1) | |
| Brix: must be equal or greater than $10^{o}$ | |
| Poor / musty / bland / acidic / watery<br>Flavour must be typical of cultivar | |
| TEXTURE | |
| Granulation | < 10% |
| GENERAL PROFILE | |
| Arrival Temperature – Below 3.0 $^{o}$C or above 10.0 $^{o}$C | |
| Internal and surface penetrating pest damage / deep bacterial blemishes / mould or yeast / rotting fruit / mechanical damage | < 10% |
| Physiological disorder / chill damage / poor storage / overloading | 0% |
| Pips | 0% |
| Foreign body contaminant including soil / stones / chemicals | 0% |
| Standard yield | 35% |
| Total defects not to exceed 30% | 30% |

# Appendix 10 Legal opinion on kava sales and WTO rules

## Potential Actions for the International Kava Executive Committee to Address Kava-Kava Import Restrictions

### 1. Introduction

This paper briefly outlines considerations of potential actions to be taken by the International Kava Executive Committee ("IKEC") in relation to kava-kava import restrictions. It sheds light on the decline of Kava exports from PICs following the ban on the sale, supply and import of unlicensed medicines containing kava imposed by a number of EU-member States and examines the potential for actions that could be taken by the IKEC under WTO, EC or national legislation.

The paper briefly concludes that actions that are most likely to be practicably taken are the lobbying of the WTO by its concerned members such as Fiji and Solomon Islands in the form of initiating a WTO complaint; the regaining of market authorization by endorsing the inclusion of kava on the positive list under the EC's 2005 Herbal Medicine Directive; and lastly, the avoidance of any legal proceedings under national legislation, which would be time-consuming and costly.

In the current context and scope of the issues considered, the paper does not examine any implications of food legislation. Furthermore, judging from the HS codes as contained in Annex I of the WTO Agreement on Agriculture, kava does not appear to be covered by it and therefore does not appear to oblige to any tariffication or customization codes.

### 2. Background Information

#### *2.1 Kava-kava*

Kava is an herbal remedy produced from the Kava-kava (piper methysticum) plant, which is a member of the pepper family native to many Pacific Ocean islands. The herb is mainly produced by small-scale rural dwellers in the South Pacific Island countries of Fiji, Vanuatu, Tonga, Solomon Islands and Samoa.

Preparations are normally made from the root, but other parts of the plant have also been used.[109]

Kava is mainly sold as an unlicensed herbal remedy, traditionally used to treat bladder discomfort, anxiety, tension and restlessness. It is sold independently as an herbal medicine or contained in foods or beverages.

#### *2.2 The IKEC*

The IKEC is an international non-profit organization focusing on re-establishing the kava trade between the kava-producing South Pacific Island States and Europe. It consists of representatives of national pharmaceutical and herbal associations, scientific experts, kava growers and kava producers, and is comprised of delegates from both the Pacific and the EC. The Council was founded in November 2003, against the background of the socio-economic consequences for some of the least developed Pacific Island States, namely Fiji, Samoa, Tonga and Vanuatu, resulting from the ban on kava products imposed by the health authorities of many EC Member States.[110]

The IKEC is operating in close cooperation with the Government's of Fiji, Samoa, Tonga and Vanuatu. It is primarily supported by CDE and PRO€INVEST. Centre for Development of Enterprise (CDE) is a joint EU-ACP institution devoted to private sector enterprise development in Africa, the Caribbean and the Pacific under the Cotonou Agreement. PRO€INVEST is an EU-ACP (Africa, Caribbean and Pacific) partnership programme

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[109] See Part IIB of the Kava Report 2003 prepared for the Centre for the Development of Enterprise by Dr. Gruenwald of Phytopharm Consulting. See also Q and A prepared by the UK Medicines and Healthcare products Regulatory Agency: (http://medicines.mhra.gov.uk/ourwork/licensingmeds/herbalmeds/furtherissues.htm#kava)

[110] See IKEC website at http://www.ikec.org/organization/index.html

developed and undertaken by the European Commission on behalf of the ACP countries. PRO€INVEST is managed by the CDE under the supervision of the EuropeAid Co-operation Office of the European Commission.

### *2.3 Not marketed in the European Commission (EC)*

The issue of possible liver toxicity was initially raised in Europe in late 2000 due to a cluster of cases in Switzerland. The issue was discussed in the EC and no regulatory action was taken as the number of reported cases was not considered to be sufficient to alter the favourable risk/benefit balance of kava.[111]

However, the increase in the number of reports of possible liver toxicity led individual member States, in particular Germany, Austria and the UK, to impose bans on the sale, supply and imports of unlicensed medicines containing kava.[112] Similar action was taken in relation to foods containing extracts of kava.

Kava is currently not sold at all in mainland EC-member States.[113]

In Germany, the health authorities decided on 12 May 2005 to revoke the ban on kava following an appeal by kava producers that it was disproportionate. However, registrations remain inactivated until further notice, which means that kava is not available on the market.[114]

The UK is currently reviewing the prohibition. The Medicines and Healthcare products Regulatory Agency ("MHRA") has launched a consultation in January 2005 and is preparing its report.[115]

On 14 June 2005, the UK notified the WTO Committee on Sanitary and Phytosanitary Measures that any food containing kava had been banned from being imported and sold in Northern Ireland, pursuant to similar regulations adopted in the rest of the UK.[116] There are currently no specific controls in place on the inclusion of kava in foods and the ban is considered necessary to protect customers against the risk of liver damage that kava may cause.

### *2.4 New EC legislation*

The EC Directive on Traditional Herbal Medicinal Products (the "Directive"), due to come into force on 30 October 2005, introduces a registration scheme for traditional herbal medicines.[117] The Directive requires traditional, over-the-counter herbal remedies to be made to assured standards of safety and quality and for regulations to be standardized across Europe. Manufacturers will have to apply for a licence for every product which must each comply with the official standards.

A new European Committee, the Committee on Herbal Medicinal Products ("HMPC"), will establish a European positive list, provided for in Directive 2004/24/EC. The list will contain herbal substances, herbal preparations and combinations thereof, for which traditional usage and safety were accepted, and must be authorized by Member States.

**Objectives for the IKEC**

- Contest the UK's ban at WTO level;
- Avoid legal proceedings at national level against each State;[118]
- Regain market authorization for kava products in the EC.

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[111] See Q and A prepared by the UK Medicines and Healthcare products Regulatory Agency: (http://medicines.mhra.gov.uk/ourwork/licensingmeds/herbalmeds/furtherissues.htm#kava)
[112] Other EU Member States who have suspended the authorization to market kava are France, the Netherlands, Portugal, and Ireland. Belgium and Malta issued official warnings.
[113] See note 2. Also confirmed in conversation with Dr Gruenwald (IKEC) on 29 June 2005.
[114] Noya, Chris., 2005. "Country Situation Analysis".
[115] See Consultation document MLX319: The Medicines for Human Use (Kava-kava) (Prohibition) Order 2002 – 31 January 2005.
[116] WTO Notification G/SPS/N/GBR/4 of 14 June 2005.
[117] Directive 2004/24/EC of 30 April 2004.
[118] See "Strategic options" in Part IV of the 2003 Kava Report.

## 3. Actions so far…

### *3.1 ACP Conference of Ministers*

The ACP-EU Joint Parliamentary Assembly adopted a resolution in February 2004 calling on the concerned EC Member States to urgently review, on the basis of scientific evidence, the ban and restriction on kava and kava-based products in the EC Members States.[119]

### *3.2 Complaint by Fiji to the WTO SPS Committee*

Ambassador Ratu Tui Cavuilati of Fiji complained about the UK ban on the use of kava-kava at the WTO SPS Committee meeting of 29-30 June 2005. Fiji provided a lengthy counter argument to the UK's assertion that kava-kava is associated with rare cases of liver toxicity — only three cases have emerged out of 450 million pills dispensed worldwide between 1990 and 2000 according to figures provided by Fiji.

The EC Commission, speaking on behalf of its Member States, responded that the UK is currently reviewing the measure.

### *3.3 IKEC Resolutions of 2004*

The IKEC suggested in its resolutions of 2004 that the EC should adopt the same position as the US, and require the industry to use cautionary labelling as an alternative to banning kava.[120] It is recommended that precise technical specifications are developed and implemented as a high reference standard for kava raw material with stringent quality control measures in the producing country to ensure that only suitable kava varieties are grown and marketed.

### *3.4 World Health Organization*

The WHO is currently carrying out a safety evaluation of the use of kava and should publish its report immanently.

## 4. Introducing a WTO complaint

The import restrictions on kava are a result of outright bans (such as the UK, the Netherlands) or public health policies to suspend market authorization (such as France, Portugal) adopted by the national health authorities of several EC Member States.

The EC and its Member States are members of the WTO in their own right. Even on those matters which are regarded as the responsibility of the EU Member States rather than the EC, it is practice to speak with one voice.[121] In a few instances WTO dispute proceedings have been instituted against individual EC Member States, but none has been completed.

Fiji and the Solomon Islands are WTO Members with Samoa and Vanuatu as accession members and WTO observers. The other producing countries are not members of the WTO and as such do not have recourse to the WTO. Although companies are the direct beneficiaries of the WTO procedure, they do not have direct access to it. However, proceedings in the WTO are almost always the result of a company or a trade association complaining to its government about a trade barrier encountered in a foreign market. The IKEC would therefore have to lobby Fiji and Solomon Islands to initiate a WTO complaint.

Article XVI:4 of the WTO Agreement requires each WTO Member to ensure the conformity of its laws, regulations and administrative procedures with its WTO obligations. Regulatory health measures adopted at EC or national Member State level by governmental health authorities can be challenged by other WTO Members if they breach WTO law.

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[119] OJ C 120/16 of 30 April 2004.
[120] See also "Possible alternatives to a withdrawal of market authorization" in the Kava Report 2003, Part III.
[121] McGovern, *International Trade Regulation*, at paragraph 1.323.

### *4.1 WTO Dispute Settlement Procedures*

The objective of the dispute settlement mechanism is first to secure the withdrawal of inconsistent measures, secondly to give compensation, but only as a temporary measure pending the withdrawal of the inconsistent measure if that is not immediately practicable. Finally, to permit retaliation: in the form of counter measures, suspending the application of concessions or other obligations under the covered agreements towards the other Member State. Fiji and Solomon Islands could therefore consider obtaining the withdrawal of the bans/suspensions of authorization for kava imports into the EC through the WTO dispute settlement mechanism. However, the dispute settlement system does not provide reparation and will not oblige the EC to remedy past wrongs, namely the negative impact of the import restrictions on the kava-producing countries.

The basis for a complaint is simply infringement of one or more provisions of one or more of the WTO Agreements. A complaint must further be made on the basis that a benefit has been nullified or impaired, i.e. Fiji Islands and Solomon Islands must show that a benefit derived from the WTO agreements is prejudiced by the measures adopted by the EC Member States, such as market access for kava.[122]

However, before bringing a case, the WTO Member must judge whether action would be fruitful.[123] The dispute settlement mechanism aims at securing a positive solution to a dispute that is mutually acceptable to the parties. In relation to kava, accepting cautionary labelling as an alternative to outright bans could be considered, for instance, as a mutually acceptable solution for all parties to aim for when introducing a complaint.

The Understanding on Rules and Procedures governing the Settlement of Disputes ("DSU") lays down the procedure for the settlement of disputes arising under any of the WTO Agreements. WTO disputes are dealt with by the WTO General Council convening as the Dispute Settlement Body ("DSB"). The DSB administers the rules and procedures of the DSU. It has the authority to establish panels, adopt panel and Appellate Body reports, maintain surveillance of implementation of rulings, and authorize retaliatory measures in cases of non-implementation of rulings. The DSU sets out in detail the procedures and timetable to be followed in resolving disputes.

The countries in dispute first enter into consultations with each other.[124] These consultations start when the WTO Secretariat is notified that the countries are discussing the matter or will be discussing it as of a certain date. One of the purposes of consultations is to clarify the facts of the dispute.[125] Consultations are confidential, and without prejudice to the rights of any Member in any further proceedings.[126] During consultations, information is gathered together but confidentiality protects one party's offers from being presented to the panel by the other.

If the consultations between the countries in dispute fail to arrive at a solution after 60 days, the complainant country may ask the DSB to establish a panel to examine the case.[127] Requests must be submitted in writing and "give reasons for the request, including identification of the measures at issue and an indication of the legal basis for the complaint."[128] A "measure" can be any act of a WTO Member, whether or not legally binding, including administrative guidance issued by a government. As such, the warnings issued by health authorities in certain Member States on the use of kava are "measure" which could be challenged in the same way as the active bans imposed in other EC Member States.

The establishment of a panel is virtually automatic. The DSB must establish a panel no later than the second time it considers the panel request, unless there is a consensus against it. The panel must be constituted within 30 days of its establishment. Panellists, which are usually government officials of neutral countries or recognized trade law experts, serve in their individual capacities and are not subject to government instructions. Citizens of Members whose governments are parties to the dispute may not serve on the panel, unless the parties consent.

Generally, evidence has to be supplied by the parties to the dispute. However, on the basis of Article 13 of the DSU, a panel has "the right to seek information and technical advice from any individual or body which it deems appropriate measure". In the past, the advice of experts of the World Health Organization, for example, has been used by panels to arrive at a conclusion. Such an option would certainly be appropriate in any dispute relating to kava.

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[122] Article XXIII GATT.
[123] Paragraph 7 of Article 3 DSU.
[124] Article 4 DSU.
[125] Appellate Body report *Brazil – Aircraft*.
[126] Article 4.5 DSU.
[127] Article 4.3 and 4.8 DSU.
[128] Article 6.2 DSU.

The panel's final report should normally be given to the parties to the dispute within six months. Article 19 DSU requires the panel to recommend, if a measure has been deemed to be inconsistent with a covered agreement, that the Member concerned brings the measure into conformity with that agreement.

Either party may appeal against the findings of the panel. An appeal must be limited to points of law covered in the panel report. Appeals come before a standing Appellate Body composed of seven persons; three members of the Appellate Body sit at any one time. The Appellate Body can uphold, modify or reverse legal findings of the panel. As a general rule, the duration of the appeal proceedings is not to exceed 60 days but in no case may it exceed 90 days. The DSB adopts the report of the Appellate Body 30 days after it has been issued, unless there is a consensus against its adoption.

The WTO Member that has lost the case is given a reasonable period of time (the duration of which can, if necessary, be determined through binding arbitration) to comply with the ruling and to bring its legislation into conformity with WTO law. If it does not act within the reasonable period, it must enter into negotiations with the complainant in order to determine a mutually acceptable compensation. This could be, for example, the reduction of tariffs in areas of interest to the complainant. If after 20 days no satisfactory compensation is agreed, the complainant may request authorization from the DSB to suspend concessions or obligations against the other party. The DSB will grant this authorization within 30 days of the expiry of the reasonable period of time, unless there is a consensus against it.

## 5. Potential infringements of WTO law

### *5.1 General Agreement on Trade and Tariffs ("GATT")*

The bans on the importation of kava are a form of "quantitative restriction", which in its broad sense denotes any measure (other than a tariff) which has the effect of reducing the flow of trade in any goods. Article XI of the GATT lays down a general prohibition on quantitative restrictions, defined as prohibitions or restrictions on trade.

However, Article XX(b) of the GATT allows Governments to take unilateral action on trade and adopt the necessary measures in order to protect human, animal or plant life or health, provided they do not discriminate or use this as disguised protectionism. Further, WTO Members have the right to determine the level of health protection that they consider appropriate.[129]

The elaboration of rules for the application of Article XX (b) of the GATT is one of the objectives of a specific WTO agreement dealing with food safety and animal and plant health and safety, the SPS Agreement, which supplements the GATT. Indeed, Article 2.4 of the SPS Agreement provides that measures which comply with the relevant provisions of the Agreement are presumed to satisfy Article XX(b) of the GATT.

### *5.2 WTO Sanitary and Phytosanitary Measures Agreement*

The right of WTO Members to set the health and safety standards they deem appropriate is endorsed by the WTO, but it must be done in a way which least hinders continued trade.

The SPS Agreement applies to all sanitary and phytosanitary measures which affect international trade. SPS measures are defined as any measure applied to protect health within the territory of the WTO Member from risks arising from plants or products thereof, as well as from disease-causing organisms in foods and beverages.[130] SPS measures include all relevant laws and regulations including certification and approval procedures and methods of risk assessment, as well as packaging and labelling requirements directly related to food safety. As such, the contested national measures in relation to kava are SPS measures which would be covered by the SPS Agreement. Measures are covered by the definition even if they are not mandatory (e.g. the warnings issued by health authorities against the use of kava).

Article 13 requires each WTO Member to be fully responsible for the observance of all obligations in the SPS Agreement. The main obligation is set out in Article 1.1 which requires that SPS measures which may affect international trade are developed and applied in accordance with the SPS Agreement. The SPS Agreement sets out general procedural requirements for the setting of such standards and seeks to ensure that any SPS measure is

[129] Appellate Body report *EC – Asbestos*.
[130] Annex A of the SPS Agreement, paragraph 1.

scientifically based and protects against actual health risks. They should be applied only to the extent necessary to protect human, animal or plant life or health.

Article 5 addresses the issues of the assessment of risk and the determination of the appropriate level of SPS protection. WTO Members must ensure that their measures are based on an assessment, as appropriate to the circumstances, of the risks to human life or health[131], taking into account the risk assessment techniques developed by the relevant international organizations. This provision would be central to any claim that the bans on kava are a disproportionate response to the risk assessment of the use of kava. It appears from the Hormones case that the burden of proving a breach of Article 5 lays, at least initially, on the complainant – i.e. Fiji and Solomon Islands. In this context, the report prepared by the CDE in March 2003 would be most relevant.

Although zero risk is not a meaningful standard of risk assessment, it may be the level chosen by a Member as its appropriate level of protection to implement the lowest level of risk that could be scientifically determined. This is particularly true where human health and life, as in the case of kava, is concerned. The existence of uncertain and unknown elements does not however justify a departure from the requirements of risk assessment.[132]

WTO Members are encouraged to use international standards, guidelines and recommendations where they exist. However, members may use measures which result in higher standards if there is scientific justification. They can also set higher standards based on appropriate assessment of risks so long as the approach is consistent, not arbitrary. And they can to some extent apply the "precautionary principle", a kind of "safety first" approach to deal with scientific uncertainty. Article 5.7 of the SPS Agreement allows temporary "precautionary" measures. In determining whether there is sufficient scientific evidence (at least where there is a risk of irreversible damage to health as in the case of kava), prudence is a valid consideration which could justify for instance the ban in the UK on the use of kava in foods until further evidence is established.[133]

When determining the appropriate level of protection, Article 5.4 of the SPS Agreement requires Members to take into account the objective of minimising negative trade effects of SPS measures. This provision could also be invoked to encourage the dispute body to select a solution, such as cautionary labelling, that would minimize the trade effects.

A further relevant obligation is Article 2.2 which requires Members not to maintain measures without sufficient scientific evidence. In the Asbestos case, the Appellate Body applied the risk assessment doctrine to deal with the situation where scientific advice is divided. In justifying measures under GATT XX (b), a WTO Member may rely, in good faith, on scientific sources which, at that time, may represent a divergent, but qualified and respected opinion. It is not obliged to follow the majority scientific view. The fact that there exists medical opinion against the use of kava could potentially justify the import restrictions, despite the existence of contrasting medical opinion supported by the IKEC. Indeed, WTO Members may rely on an assessment carried out by another WTO Member (e.g. Switzerland) or an international organization.[134]

## 6. Economic Partnership Agreement (EPA) and implications on the ban

From its inception the WTO — has allowed member countries to conclude free-trade areas, as an exception to the fundamental principle of non-discrimination set out in the most-favoured-nation clause of GATT's Article 1.

The Cotonou Agreement between the African, Caribbean and Pacific (ACP) Group of States and the EU, signed in June 2000, foresees the negotiation between September 2002 and December 2007 of economic partnership agreements (EPAs) as provided for in Article 37(1). Until 31 December 2007, the trade provisions of the expired Lomé Convention will remain in force. The new trading arrangements will be WTO-compatible and progressively remove barriers to trade between ACP States and the EU and enhance cooperation between them in all areas relevant to trade.[135]

South Pacific countries which have decided to negotiate an EPA with the EC as part of the Pacific ACP Group includes kava producing countries Fiji, Solomon Islands, Samoa, Vanuatu and Tonga. Others are the Federated States of Micronesia, Kiribati, the Republic of the Marshall Islands, Nauru, Niue, Palau, PNG, and Tuvalu.

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[131] Annex A of the SPS Agreement, para. 4.
[132] AB report *Australia – Salmon.*
[133] AB reports *EC – Hormones* and *Japan – Agricultural Products II*.
[134] AB report *EC – Hormones*.
[135] Chapter 2: Article 37 91 of the Cotonou Agreement 2000.

Based on the provisions of the Cotonou Agreement both sides agree that the overall objectives of Pacific ACP-EC economic and trade cooperation will be the sustainable development of the Pacific ACP States, their smooth and gradual integration into the global economy and contributing to poverty eradication in the Pacific ACP States.[136]

The specific aims and objectives of Pacific ACP-EC economic and trade cooperation will include, in particular, enabling the Pacific ACP States to manage the challenges of globalization and to adapt progressively to new conditions of international trade to enhance overall economic and social development; enhancing the production, supply and trading capacity of the Pacific ACP States as well as their capacity to support regional economic initiatives in the Pacific ACP region and creating a new trading dynamic between the Pacific ACP States and the EU.

### *6.1 EPA and European Union Market Access for Kava*

Both sides recognize that conclusion of the Pacific ACP–EC EPA involving the ultimate liberalization of trade between them may have important implications for the Pacific ACP States in terms of their overall national development efforts. The Pacific ACP-EC new trading arrangements will be compatible with WTO Rules then prevailing.

The negotiation of a Pacific ACP - EC EPA will take place at two levels, namely Ministerial and Senior Negotiators level. In the lead-up to the above negotiations, ACP States and the EU have also agreed to proceed in two Phases, Phase I, at the all-ACP level, focusing on EPA issues of concern to all ACP States, and Phase II, at the regional level, to focus on issues of direct relevance and particular concern to specific regions[137]. Kava could be included in the Phase II negotiations and linked to possible requests to have it listed under the Herbal Medicinal Directive.

At the Senior Negotiators level, the RNT will establish Negotiating Groups (NGs) on specific issues/subject areas. Kava could be established as a subject area given the impact of its contribution to the economies of the region. The Pacific ACP States and EC will establish a Regional Preparatory Task Force (RPTF) in order to reinforce the close link between EPA negotiations and development cooperation as mandated by the Cotonou Agreement. The IKEC in cooperation with the RPTF could negotiate to reach substantive agreements on basic principles and elements to be integrated into an EPA for the Kava sector. Detailed Research and Preparatory activities would be undertaken by the IKEC in cooperation with the EC in the Context of technical preparatory talks. The 2003 Kava Report would be of relevance here.

IKEC and a kava NGs will hold negotiating sessions with EU officials on specific technical issues. These meetings will be prepared at the technical level, including through drafting joint working papers on the issues in question. The RNT will also meet with senior EU representatives, as required, to negotiate substantive political/policy issues. Within the frameworks of these talks will include issues such as the regaining of EU kava market authorization through the Herbal Medicines Directive. The outcomes can then be locked into an EPA agreement.[138]

## 7. Obtain Licence under New EC Legislation

At present, the EC Directive on medicinal products does not apply to herbal medicines. As such, EC Member States are left to enact different procedures and provisions in relation to herbal medicines.

The Herbal Medicines Directive will come into force on 30 October 2005. It requires traditional, over-the-counter herbal remedies to be made to assured standards of safety and quality and for regulations to be standardized across Europe. Once the Directive is implemented, kava manufacturers will need to obtain import licences in order to market their product in the EC.

An herbal medicinal product is defined as any medical product, exclusively containing as active ingredients one or more herbal substances or one or more herbal preparations, or one or more such herbal substances in combination with one or more such herbal preparations.

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[136] Pacific ACP-EC EPA Negotiations Joint Road Map, Brussels September 2004.
[137] The Pacific ACP-EU Partnership: *The Way Forward*.
[138] Chapter 2 Article 37 (1) of the Cotonou Agreement 2000

An herbal substance is defined as whole, fragmented or cut plants, plant parts, usually in dried form but sometimes fresh. An herbal preparation is obtained by subjecting herbal substances to treatments such as extraction, distillation, expression, fractionation, purification, concentration or fermentation.

Kava would appear to fall within the scope of the Directive.

The Directive provides for a simplified registration procedure for unlicensed herbal remedies, called "traditional-use registration", which will be overseen by a new scientific committee, the Committee for Herbal Medicinal Products (CHMP), part of the European Medicines Agency (formerly the European Agency for the Evaluation of Medicinal Products). The Committee will carry out tasks concerning the simplified registration and authorization of medicinal products, establishing Community herbal monographs relevant for registration as well as the authorization of herbal medicinal products.

Manufacturers will have to apply for a licence for every product, and each must comply with the official published standards. There are considerable expenses involved in obtaining certification. Furthermore, the Directive requires the applicant and the registration holder to be established in the Community. The applicant must submit an application to the competent authority of the Member State concerned.

Traditional-use registration will enable herbal remedies to be sold over-the-counter without results of tests and trials on safety and efficacy being submitted to national regulatory authorities. Instead an applicant will have to provide bibliographic or expert evidence of traditional medicinal use of that remedy or a corresponding product for at least 30 years before the application, including at least 15 years in the EU, and a bibliographic review of safety data along with an expert report. Normal safety requirements for licensed medicines will also apply.

Herbal remedies will qualify for traditional-use registration if they satisfy the following conditions:

- have indications for use without the intervention of a medical practitioner;
- be for administration with a specified strength and dose;
- be prepared for oral, inhalation or external use;
- satisfy the period of traditional use given above.

Manufacturers must further provide sufficient information on traditional use to assess safety of the products when used as specified and the plausibility of their efficacy based on long-standing use and experience. Registration can be refused on the ground that the product could be harmful under normal conditions of use. The supply of some herbs can also be restricted to registered herbal practitioners only.

Herbal remedies marketed through this procedure will also need to specify on labelling, user leaflets and in adverts that the product is a traditional herbal medicinal product for use in specified indications exclusively based upon long-standing use.

The Directive also requires that the Committee must produce a list of herbal substances, preparations and combinations thereof for use in traditional herbal medicinal products will be established. The list will contain, with regard to each herbal substance, the indication, the specified strength, the route of administration and any other information necessary for the safe use of the herbal substance as a traditional medicinal product. For the listed substances, the application of registration will require less supporting information.

Another course of action for the IKEC would therefore be to lobby for the inclusion of Kava on positive list under Herbal Medicines Directive.

It should however be noted that the Directive allows Member States to refuse to recognize a marketing authorization on the basis of a potential serious risk to public health.[139] Indeed, Article 95(8) of the EC Treaty allows EC Member States to raise any public health concerns about harmonization measures with the EC Commission. In other words, an EC Member State could potentially refuse imports of kava even if it is authorized at EC level or in another Member State.

[139] Article 29(2) of Directive 2001/83/EC as amended by the Herbal Medicines Directive.

## 8. Further Considerations

As there has been no measure at EC level prohibiting the import/distribution of kava in the EU, legal recourse at EU level would be inappropriate.

We have however considered Article 134 of the EC Treaty, which provides that in order to ensure that the execution of measures of commercial policy taken in accordance with the EU Treaty by any Member State is not obstructed by deflection of trade, the Commission can recommend the methods for the requisite cooperation between Member States. However, the import restrictions adopted by certain EC Member States cannot be said to affect intra-Community trade and as such, there is no ground for applying Article 134 EC.

## 9. Conclusions

On the basis of the above, the following preliminary conclusions on potential IKEC actions can be drawn:

- lobby Fiji and Solomon Islands, as members of WTO, to initiate and lodge compliant with WTO's Dispute Settlement Board;
- use the mechanism and platform of the EPA to regain market authorization by, e.g. by establishing kava as an EPA sector issue and lobbying for the inclusion of Kava on positive list under the Herbal Medicine Directive; and
- avoid legal proceedings on national level against each single Member State.

## Appendix 11 *Kava Promotion Council* proposal

This annex aims to stimulate debate both within Vanuatu and the donor community on future kava development.

### Motivation

Kava in Vanuatu is seen as a national resource and is the subject of an immense amount of interest at several levels in the country. However in terms of crop development, improvement and marketing, efforts are haphazard and under-funded. At the same time, the VCMB collects significant amounts of financial resources from the Government as well as from kava exporters through export levies. While it is understood that the Government of Vanuatu has a significant need for revenue it can be argued that the current method of export taxes via the VCMB directly hampers economic development while contributing little, directly, to the development of the crop.

In the course of the country study the consultant has come to the opinion that the value of the STDF funding will be greatly enhanced by a recognition that there exists within Vanuatu a significant pool of financial and human resources that could be better used to develop the crop. In essence, the STDF fund could be seen as one component of an integrated plan which would co-ordinate kava related activities and resources (including other donor projects). This would be essentially be applying 'grease to the wheel' and allay fears on governance issues which could be a concern.

### Aims and Objectives

The objective of this document is to put forward a proposed mechanism for the co-ordinated development of kava which would be a co-ordinating body and clearing house for all kava related activities. *It would not involve itself directly with commercial production or marketing.*

### Proposal

To co-ordinate crop development the proposals in this document are to do the following;

- Set up a trust, could be named Kava Promotion Council, with members of the provincial and national government departments and agencies.
- The trust would hold legal title to the intellectual and other property rights (e.g. national logos) of kava varieties in Vanuatu on behalf of the traditional growers and would be the corresponding body on such issues.
- The trust would then mandate a Working Group (technical and marketing) drawn from various government departments, scientists, exporters and growers to draw up a prioritized list of co-ordinated activities requiring funds and other inputs.
- These activities could then be funded by a combination of export generated revenue and donor funds.
- The trust would not have the right to collect money and other than the funding of a small secretariat, members of the trust and working groups will not get salaries or other stipends from the Council.
- However funding should be available for members to attend Annual General Meetings (AGM's) and a secretariat.
- The trust should have a small secretariat administered by a participating organization e.g. VARTC.

### Activities

Two working groups of interested organizations and individuals can then be set up to operate under the umbrella of the Kava Promotion Council.

The setting up of a Technical Working Group mainly drawn from the Government and aid agency scientist's (TWG) to review research needs, agree priorities and be the resource for considering applications for disbursements from the collected funds (see section on Funding below) and for donor agencies.

Parallel to this a Market Development Group mainly drawn from relevant government ministries and exporters could be set up to look at promotional activities (trade fairs, publications, advertising) and as for the TWG formal applications for specific activities would be considered by this group.

It is suggested that the working groups meet on a regular basis such as quarterly and that one participant be the designate contact person for the group.

**Participating organizations**

- National Government including;
  - Vanuatu Quarantine Inspection Service
  - Department
  - Vanuatu Agricultural Research and Technology Centre (VARTC)
  - Department of Industry, Trade and Commerce
- Secretariat
- Provincial Governor's
- Kava exporters
- Growers organization's (these should be organized formally at some stage)

**Funding**

- A fee for the issuing of phytosanitary certificates based on a percentage of export value charged by VQIS (< five per cent of f.o.b. value) will replace the current system of export taxes collected by VCMB.
- The fees will be payable directly to an account managed by the Ministry of Finance and Economic Development
- An agreed proportion of the fees collected would be available to the Trust for selected projects and the rest sent to the Treasury.

**Monitoring**

It is suggested that the secretariat minutes of meetings together with a register of agreed applications for disbursement of funds. Each organization (including the secretariat) that is the recipient of funds will have to pre-agree to the appropriate monitoring that goes with the funding. Annual accounts will have to be presented and approved where appropriate. This would either be to the National Treasury in the case of government departments or an external auditor for private or parastatal bodies.

## Appendix 12 Key contacts

| Samoa | | | | | |
|---|---|---|---|---|---|
| **Organization** | **Contact Name** | **Email** | **Telephone** | **Fax** | **Address** |
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| CJ Exports and Imports Ltd. | Mr. Robert Willis, Director | cjexp@samoa.ws | (685) 26975 /25848 | (685) 25852 | PO Box 3280, Apia, Samoa |
| Ministry of Health | Mr. Vaomalo Kini, Acting Manager, Laboratory Services | VaomaloK@health.gov.ws | (685) 21212 | | National Health Laboratory, General Hospital, Apia |
| Ministry of Health | Ms Terenia Simanu, Acting Principal Envt Officer | tas_mania_utah@hotmail.com | (685) 77917 | | |
| Samoa Water Authority | Latu Kupa, General Manager; Mrs Kuinimere Asora, Team Leader | latu.kupa@samoa.ws; Kuinimeri@swa.gov.ws | (685) 20409 | (685) 20376 | PO Box 245, Apia, Samoa |
| Tradewinds Fishing Company Ltd. | Kim Levy Managing Director | kimlevi@lesamoa.net | (685) 20088 | (685) 20238 | PO Box 2264, Apia, Samoa |
| Apia Export Fish Packers Ltd. | Mr. Ray Hunt (Chief Financial Officer), Mr. Chris Hewson (Manager) | aefl@samoa.ws | (685) 26127 | (685) 22058 | NZ Airways Bldg, PO Box 2273, Apia, Samoa |
| Apia Longline Ltd., Primefish Exports Ltd. | Mr. John Boyle, Director | johnb@samoa.ws | (685) 21237 | (685) 21578 | Level 2, Lotemau Centre, PO Box 1378, Apia, Samoa |
| Ministry of Commerce, Industry and Labour | Iulia Petelo, ACEO Industry, Development, Investment Promotion, Codex, Fair Trade | iulia.peteo@mcil.gov.ws; codex.samoa@mcil.gov.ws | (685) 20441 /20882 | (685) 20443 | PO Box 862, Apia, Samoa |
| Women in Business | Karen Mapusua, Associate Director | karen@womeninbusiness.ws | (685) 21959 | (68) 25246 | PO Box 6591, Apia, Samoa |

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| Ministry of Agriculture, Crops Division | Mrs Laisene Samuelu, Assistant CEO, Crops Division | lsamuelu@lesamoa.net | (685) 20605 /23416 /23426 | (685) 23996 | PO Box 1874, Apia, Samoa |
| Ministry of Agriculture, Crops Division | Pueata Tanielu, Crops Division | | | | Nu'u Research Station, PO Box 1874, Apia, Samoa |
| Ministry of Agriculture, Crops Division | Mr. Kirifi Pouono, ACEO, Quarantine Division | kpouono@lesamoa.net | (685) 20924 | (685) 685201/2/3 | PO Box 1874, Apia, Samoa. |
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| Ministry of Agriculture, Fisheries Division | Mr Frank Fong, ACEO, Policy Planning and Communication | frank.fong@maf.gov.ws | (685) 20369 /2224 | (685) 24292 | PO Box 1874, Apia, Samoa |
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| Samoa Breweries Ltd. | Foma'i Lei Sam, General Manager | fomai@vailima.ws (vailima@vailima.ws) | (685) 20200/ 20201 | (685) 22929 | PO Box 3015, Apia, Samoa. |
| FAO sub-regional office for the Pacific | Dirk Schultz, Food and Nutrition Officer | Dirk.Schultz@fao.org | (685) 22127 | (685) 22126 | Private Mail Bag (PMB), Apia, Samoa |
| WHO Office | | who@who.org.ws | (685) 23757 /23756 | | EU Delegation, Level 4 - Ioane Viliamu Bldg, PO Box 77, Apia, Samoa |

## Solomon Islands

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| National Fisheries Development Ltd | Adrian Wickham, General Manager | iana@nfd.com.sb | (677) 30991/2 | (677) 30994 | |
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| Tanna Coffee Development Company | Terry Adlington and Marilys Halasz (Owners) | coffee@vanuatu.com.au | (678) 23661 phone/fax | (678) 23661 phone/fax | PO Box 1351, Port Vila, Vanuatu |
| Projet d'Organisation des Producteurs Agricoles pour la Commercialization Associative | François Japiot, Chef de Projet | pop@vanuatu.com.vu | (678) 23052 | (678) 28045 | Département de l'Agriculture, B.P. 040, Port Vila, Vanuatu |
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| Vanuatu Virgin Coconut Oil | Mark Bowker, Director | mark@vvcol.com | (678) 37470 | (678) 53147 | PO Box 522, Luganville, Santo Island, Vanuatu |
| Localex Ltd | Leong Man San, Manager | leong.mansan@vanuatu.com.vu | (678) 36526 | (678) 36030 | PO Box 37, Luganville, Santo, Vanuatu |
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| Vanuatu Agricultural Research and Technical Services | Scott Kaltavana | scottkltvr@yahoo.com.au | (678) 36275 | | |
| Vanuatu Commodities Marketing Board | Mr. Batick Karl | vcmb@vanuatu.com.vu | (678) 36612 | (678) 36612 | PO Box 268, Luganville, Santo, Vanuatu |

| **Regional Organizations** | | | | | |
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| Department of Fisheries and Marine Resources | Sylvester Diake, Under Secretary | sylvester_diake@yahoo.com.au | (677) 39141 | | |
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**Appendix 13 Sub regional workshop outcome and recommendations**

# Sanitary and Phytosanitary Compliance and Agri-food Safety and Quality Requirements in Selected LDCs in the Pacific Region - Samoa, Solomon Islands and Vanuatu

**Sub-regional workshop, Port Vila, Vanuatu, 21–22 August 2006**

# OUTCOME AND RECOMMENDATIONS

## Tuesday, 22 August 2006

# OUTCOME AND RECOMMENDATIONS

1. The sub-regional workshop on Sanitary and Phytosanitary (SPS) Compliance and Agri-food Safety and Quality Requirements in Selected LDCs in the Pacific Region - Samoa, Solomon Islands and Vanuatu, was *convened* at the Melanesian Hotel, Port Vila, Republic of Vanuatu, on 21–22 August 2006. Senior Government officials from Samoa, Solomon Islands and Vanuatu, and representatives of the private sector, research institutions, quarantine and inspection agencies, civil society organizations and the Press, attended. Of the total number of 34 participants, 7 were women.

2. The agri-food sector-specific initiative was *implemented* by the United Nations Conference on Trade and Development (UNCTAD) in close collaboration and local support from both the Department of Trade and the Ministry of Foreign Affairs and External Trade of Vanuatu. The workshop was made possible through the 'generous' financial assistance of the Government of Finland.

3. Participants highly *appreciated* the workshop being convened in the PICs in light of the current growth and proliferation of agri-food standards and food safety regulations in world trade, including internationally accepted standards such as the FAO/WHO Codex Alimentarius. This important training workshop on compliance with the WTO SPS Agreement measures on sanitary and phytosanitary (SPS), agrifood standards and quality requirements was especially *welcomed* by the host government, the Republic of Vanuatu, as initiatives of this nature have been very few and far in between, in the Pacific region.

4. Participants *appreciated* the quality of papers presented by the resources persons, country representatives, UNCTAD secretariat, and the consultant, Mr. Dermot Cassidy. They *acknowledged* the UNCTAD-commissioned study; ‘SPS Compliance and Agri-food Safety and Quality Standards in Samoa, Solomon Islands and Vanuatu’, undertaken by Mr. Cassidy on as ‘ground-breaking’ and ‘a first' in the region that comprehensively addresses compliance costs of agri-foods trade in the selected PICs.

5. When opening the 2-day workshop, Mr. Georges Maniuri, Director General of Foreign Affairs and External Trade, *acknowledged* UNCTAD’s continued presence in the Pacific region through technical assistance programs as such. The Director General *emphasized* the comparative advantage that PICs possess in terms of abundant natural resources - agriculture, fisheries, forestry - and the diversity and resilience of archaic farming systems that continue to sustain livelihoods of over 85 per cent of their populations. The co-existence and complementarities of agri-foods and export tree crops farming systems are an integral part of agriculture in the PICs, and as such, development interventions should consider them as an integral whole.

6. Vanuatu’s Minister for Agriculture, Hon. Miscellino Pipite MP., in closing the workshop officially *thanked* UNCTAD for choosing Port Vila, Vanuatu to host the workshop. He also *acknowledged* the local support rendered to the project under the tutelage of Mr. Roy Micki Joy, Director for External Trade, Industry and Investment. The Minister *reaffirmed* the strategic importance of agriculture as the ‘lead sector’ in poverty alleviation, export-led growth and development, and sustainable livelihoods of the peoples, who are predominately smallholder farmers. While the Minister *acknowledged* the phenomenal growth in international trade in food products and, the legitimate rights of importing countries to impose varying food safety and quality standards to protect human, plants and animal health, he also *cautioned* against such measures being abused and misused by importing countries as trade distortionary and protectionist measures.

7. While tariff rates and quantitative restrictions in developed market economies have *declined* in real terms over the past 40 years, conversely, there has been considerable growth and multiplicity of stringent and complex non-tariff measures, for example, SPS requirements, Codex Alimentarius, ISO standards, and variant country-level threshold limits applied on agri-food imports. Participants *expressed* concern that these measures imposed on agri-food products, especially at the borders of major markets for PICs’ exports - Australia, Japan, New Zealand, the EU and USA, act as impediments to trade.

8. Furthermore, the progressive integration of restrictive agri-food safety and quality measures, variant hygiene laws, and further harmonization and deepening of food regulations in markets of export interest to PICs (e.g. the EU's 'farm to fork' approach to regulation) not only restricts market access and the trade potential of PICs, but also causes significant economic injury [economic losses] through declining foreign exchange earnings, and increasing compliance costs (e.g. adjustment costs to meet technical standards and conformity assessment procedures) and hence lower margins, particularly in island economies where the GDP per capita is low, and dependence on one or two major export commodities is high.

9. During the course of the 2-day workshop, its was *recognized* that to be competitive in international trade, agri-food producers, exporters and traders from PICs had invest resources in costly quality management and assurance schemes, conformity assessment procedures, and infrastructure (e.g. upgrading quarantine and inspection facilities) to meet rigorous and exacting agri-food safety and quality requirements. *Failure* to meet standards exerts system-wide implications that lead to, among others, an under-utilization and erosion of trade preferences enjoyed by many PICs through numerous bilateral and regional trading arrangements, including the Economic Partnership Agreement between the EU-ACP.

10. Economic costs are *exacerbated* given that the visible 'knowledge divide' - on the quality and safety requirements driven mostly by consumers, that exists between the heterogeneous farming population in rural areas vis-à-vis those engaged further downstream in global agri-food chains. Furthermore, access to appropriate scientific, technical expertise and financial resources at the farm-level to *mitigate* the economic losses and meet marketplace requirements, remain unfettered constraints. Many of the problems faced by PICs with SPS requirements and varying regulations reflect their wider resource and infrastructural constraints that limit their capacity to comply with food safety and quality requirements, and demonstrate compliance.

11. Participants agreed to *pursue* the following recommendations, as a matter of priority, to ensure that the agricultural sector and, in particular, the agri-foods and tree crops sector's remain competitive and remunerative in world trade.

i. **Local capacity, regional co-operation:** Enhance local capacity of PICs to comply with the SPS requirements imposed in export markets of interest to them through; (i) initiatives that improve access to finance (at farm level) and scientific and technical expertise, (ii) develop appropriate, affordable and effective SPS control systems and mechanisms to gather and disseminate information on 'new' SPS measures applied by their trading partners, and (iii) increase regional co-operation and, target technical assistance through relevant and existing regional organizations, in particular, the Secretariat of the Pacific Community (SPC).

ii. **Target technical assistance:** Better targeted technical and financial assistance to; (i) develop, enhance and sustain effective SPS control systems to address SPS–related problems faced by agri-food producers, traders, and exporters in PICs, (ii) increase the awareness and understanding of SPS issues among those engaged in agri-food chains, (iii) focus on 'hands-on' technical training on practical problems and issues (e.g. certification, traceability, HACCP) vis-à-vis information sharing conferences, seminars or workshops, and (iv) ensure access to scientific and legal expertise to help PICs undertake risk assessment and demonstrate scientific justification for their own quarantine and inspection systems and, gainful participation in from international standards setting-committees, bodies, organizations, and the WTO's dispute settlement procedures.

iii. **Integrate Pacific concerns:** Consider and integrate the needs of PICs when setting agri-food safety and quality requirements in export markets so as to; (i) recognize the 'unique' trade-related problems faced by PICs including economies of scale, apparent higher vulnerability to economic and physical shocks, capacity and volume inconsistencies, poor supply chain linkages, and the tyranny of distance from major markets, (ii) implement necessary institutional reforms that considers their domestic resource costs and capacities vis-à-vis to priority domestic policy issues (e.g. health, education), (iii) mitigate the impact of high adjustment costs (organizational structures and procedures) of compliance, and (iv) allow sufficient time for PICs to comply with SPS standards and other regulations.

iv. **Vanuatu SPS project:** The Government of Vanuatu urged UNCTAD to expeditiously seek financial and technical assistance from donor agencies, including the Grant Application to the Standards and Trade development Facility (STDF), to develop and implement the project: 'Overcoming SPS-related Issues and Rejuvenating Kava Export Marketing in Vanuatu'. Kava is the single most important commodity export of Vanuatu. The EU ban on Kava imports in 2002 - due strictly to SPS-related issue of *hepatotoxicity* - has had a spiralling socioeconomic impact on the domestic economy (declining GDP, export earnings) and livelihoods (loss of income) of its farming population. This is clearly an export market and, SPS issue, requiring an SPS-related intervention. And it is justified on basis of current information. The Vanuatu project would serve as a template for replicating similar projects in other PICs which have sough assistance from UNCTAD.

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NOTES

1. To *realize* these recommendations, participants *reiterated* that concerted as well as sustained technical and financial assistance from UNCTAD and, other key regional and international agencies, is critical. Without which, most PICs would be severely *incapacitated* to develop sound policies and implement appropriate programs that address key market entry requirements, be they mandatory and voluntary, applied along agri-foods chains from the 'farm to fork'.

**Participants at the sub-regional workshop hosted by UNCTAD in Port Vila, Vanuatu on 21 August 2006**